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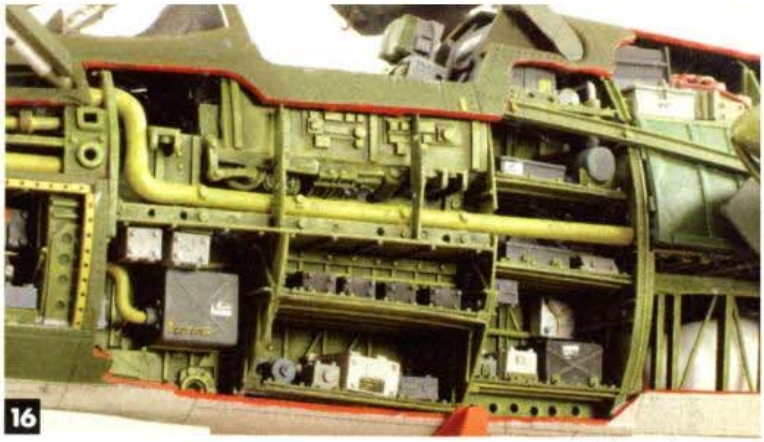

Chuck Stewart photo

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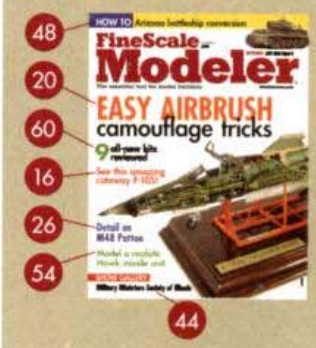

Dan Jayne's F-105D cutaway. Chuck Stewart photo

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Editor's Page

Christmas comes early: Your most wanted kit survey

Early in December, you'll be getting the January issue of *FineScale Modeler* containing the results of a survey I'm announcing here. It's the FSM Most Wanted Kit survey, your chance to tell the manufacturers what you'd most like to see on sprue. So it's entirely appropriate to call what follows a kind of *FineScale* Christmas gift.

OK, OK, maybe it's not exactly like getting a new Trumpeter 1/48 scale Vigilante under the tree. However, we do know the Vigilante was the top choice in three of these surveys before Trumpeter stepped up to the plate in 2005 with 1/48 *and* 1/72 versions. Your repeated requests to fill this obvious hole in the star line-up of recent-era jets was heard. Who knows, if it weren't for the previous Most Wanted Kit surveys, you might still be waiting for the "Vigi" to be kitted.

So this is important stuff; try to clear your mind. Set aside your troubles for a moment. Forget the double mortgage and the 15-year-old Civic that needs new front struts. Never mind your boy's report card with the "needs to learn socialization skills" comment. Ignore your daughter's sudden fascination with the spikey-haired fellow behind the counter at the music store. Try not to hear your significant other's repeated urging to spend some quality time together even though she/he knows very well you have a model to finish for the upcoming club meeting. Are you ready?

You have three seconds: What's the first model that pops into your mind that's never been kitted? Quick, before the boss sees you, go to the FSM web site (www.finescale.com) and navigate to the announcements section. You'll see a note there for the survey. Just follow the directions and hit "send." Or, you can send a postcard with the name of the all-new kit you'd most like to see made to "Editor" at the address you'll find below under "Contact Us."

Hurry, before the boss gets to work!

The rules are simple: New kits only. The survey is for most-wanted kit, not reissues or resin sets, decals, or other accessories.

Also, if you really want this to work, it's a good idea to think like a manufacturer. Try to separate your fantasy for some rare and virtually unknown one-off variant from what's realistically marketable.

And please, try to resist the temptations for ballot-box stuffing. We can spot it pretty readily, and when we see 200 votes posted within seconds for a Russian 12-engine Gigantov float plane, we have to discount it.

To get in the mood for this survey, I went down the halls here at *FineScale* central and gave each modeler the three-second challenge to name his most wanted kit. In less than a minute, I came up with a list including a 1/12 scale Lotus 25, a 1/350 scale HMS *Hood*, and an FJ-3 Fury in 1/72 scale.

I wish I could tell you how much those choices say about our staff, but I think you can draw your own conclusions.

So quick, before junior opens up FlightSim, send us your vote. And in a couple of months, we can tell the world what you want for Christmas.

Mark Thompson

Contact Us

GENERAL

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SCALE TALK

Let us know what you think! Comments, suggestions, corrections, and additional information on FSM articles are welcome. E-mail should be sent to editor@finescale.com. Letters for publication should be clearly marked "To the Editor" on the envelope and the letter, typed or hand-printed. Write to FSM at the address at left under "General." All comments for Scale Talk should be no more than 300 words long. Please remember to tell us your hometown or location. If possible, include an informal snapshot of yourself.

READER GALLERY

Show off your handiwork! Send original slides, prints, or high-quality digital images along with complete caption information to Reader Gallery at the address at left under "General." Photographs are paid for upon publication; please be sure to provide your Social Security number. FSM obtains all publication rights (including electronic rights) to the images upon payment. Unused photographs are returned only if you provide sufficient postage and packing materials.

QUESTIONS & ANSWERS

Got a modeling problem? Q&A is here to help. Send your questions to Questions & Answers at the address at left under "General." Or e-mail your question to questions@finescale.com. We are unable to conduct research such as answering questions on markings and unit histories. We publish letters of general interest; the volume of mail prevents us from answering every question in the magazine. Please include your name, address, and a daytime phone number. You may get faster answers to general modeling questions by checking out "Hobby FAQ" at www.finescale.com.

READER TIPS

Would you like to share an idea about a tool or technique and make a few dollars too? Send a brief description along with a photograph or sketch to Reader Tips at the address at left under "General." Please enclose a stamped, self-addressed envelope for the return of photos. Or e-mail your tip to tips@finescale.com. Tips are paid for upon publication; be sure to include your Social Security number. FSM obtains all publication rights (including electronic rights) to the text and images upon payment.

COMING EVENTS

Notices of modeling contests, exhibits, and swap meets are published at no charge. Information must be in our offices four months before your event takes place. For an expanded list of shows and contests check our web page at www.finescale.com. Send information to Coming Events at the address at left under "general."

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Scale Talk | Your Voice in *FSM*

courtesy Mike Brignola

Heck of a Herk

I wanted to share my enthusiasm over Paul Boyer's C-130J-30 in the July issue (p. 46). I've always been an avid reader of FSM and a long-time modeler.

His story piqued my interest because I have 20 years and more than 4,000 hours in the C-130. I've flown tail 1461 since it was delivered to California off the assembly line. The latest stretch models delivered in 2002 had new software driving the aircraft mission computers and had to go through qualification testing before release to the flying units. For about a year, Edwards Air Force Base test pilots got the opportunity to fly the first two long-body C-130Js delivered to Channel Islands Air National Guard. In fact, tail 1461 is currently at Edwards AFB for the latest block upgrade testing.

Paul did a great job pulling off the transformation of an early-version kit and upgrading it to the long-body model from Lockheed!

I'd like to challenge him on his next C-130 project to try the natural-aluminum finish of tail 99-1432 delivered to Edwards AFB in 2001 for the initial long-body testing. To my surprise, the uniform metal finish actually had silver paint (including drip streaks) in some areas to cover the zinc chromate primer.

Thanks, and keep up the good work. Now back to my one-to-one scale model.

– Lt. Col. Mike Brignola, USAF
Operational Test Pilot
Edwards AFB, Calif.

Lost list

I enjoy the fact that your magazine posts monthly new-kits listings, but kits get taken off the market without notice and then become hard to find. Could you start publishing which kits are being taken off the market?

– Nick Fisher
South Daytona, Fla.

I wish we could help you Nick. Unfortunately manufacturers are not nearly as keen to let us know about out-of-stock products as they are about making sure we know about their newest ones. We don't have a way right now to monitor what has been dropped from their product lines. – Ed.

Where's the Bofors?

After more than 50 years of modeling and having every issue of *FineScale Modeler*, it finally sank in that there is one piece of armor that I have not seen manufactured in plastic. This is the Swedish Bofors 40mm anti-aircraft gun. Yes it is available in 1/72, but not 1/35 scale. This weapon has been used by every army, navy, and yes, even every air force in the world. Ship builders too would appreciate one in this scale. Imagine a PT gun boat? The next time you have a survey, guess what I'm pushing for?

– Alan Croteau
Calgary, Alberta

Busted!

I was amused by your letter on the March 2005 Editor's Page, particularly because I have often gotten a disapproving look or comment from my wife upon arriving home with supplies, magazines, or kits from the hobby shop.

Yes, I've tried quietly smuggling these things home. It backfires, though, with kits because I'm too proud of my models and always end up showing my wife whatever I build. Then comes the inevitable question: "Gee, I don't remember ever seeing that before – when did you get it?"

Busted! – an unpleasant way to learn that you can't hide something and show it off at the same time.

– Jesse Martin Kahn
Oakdale, Minn.

Seeking Sea Kings

I realize plastic kit manufacturers try to offer a comprehensive range covering all themes in producing aircraft kits and consider comments about their marketability. So I wonder why not many Sikorsky SH-3 Sea King helicopter kits in 1/72 scale are available. Apart from Fujimi's SH-3H(D) Sea King, which is extremely rare, we are left with outdated Airfix and Lindberg offerings. An abundant supply of Westland Sea Kings is available, but nothing for the U.S. Navy.

Sign me one frustrated helicopter modeler!

– John Yahl
Auburn, Sydney
Australia

Compiled by Matthew Usher

UPDATE: Sending models and supplies to troops serving overseas

Here at FineScale Modeler*'s editorial offices, we continue to receive requests for information on how to donate modeling supplies to troops serving overseas while deployed for Operation Iraqi Freedom and Operation Enduring Freedom. Our March 2005 issue included addresses and information on donations, but in recent months that information has changed. Here's an up-to-date list of contacts and a list of frequently asked questions about shipments:*

What are these clubs?

These are clubs made up of troops stationed overseas. They meet at the bases where they reside and the clubs are run entirely by these individuals.

What items are needed?

Almost any basic modeling supplies are requested, including model kits, acrylic paints, super glue, tools, sandpaper, putty, reading material, and airbrushes.

What kits are the club members looking for?

Any kit you're willing to send will be appreciated. The modelers build all kinds of kits, including aircraft, armor, cars, figures, ships, and sci-fi.

How do I ship my donation?

All packages must go through the U.S. Postal Service (USPS), as it's the only agency allowed to ship to APO/FPO military mail addresses. Pack your donations securely with padding to minimize damage. You must fill out a customs form to ship the items; use the white customs form (No. 2976) and fill out all the appropriate address information. In the contents box, write "plastic model kits." Fill in the appropriate value of the box (it might be wise to underestimate the value slightly to avoid malfeasance). Mark the box as a gift.

What cannot be shipped?

Items like solvent-based enamel paints, some plastic cements, and other hazardous materials cannot be sent. Please substitute appropriate items. Also, avoid listing "paint," "thinner," or "glue" on the customs form, as these words will likely cause the package to be rejected or returned to you. Include appropriate items, and mark the contents as "plastic model kits."

How do I contact these clubs?

Please use these addresses:

AFGHANISTAN

The Bagram Hobby Club

Bryan Ross
Bagram Hobby Club
CJTF-76 NGA
APO AE 09354
E-mail: bryan.ross@baf.afgn.army.mil

or

Darryl Sapoff
SSG Darryl Sapoff
HHD TF Cerberus
APO AE 09354
E-mail: sapoffd@baf.afgn.army.mil

The Kandahar Modeling Club

SSgt. Jose R Quimbiulco
451AEG/SVS
APO AE 09355
E-mail: jose.quimbiulco@kdab.centaf.af.mil

IRAQ

The Baghdad Model Club

Steven Araujo
Baghdad Model Club
KBR - ISG
APO AE 09342
E-mail: steven.araujo@halliburton.com

Baghdad Troop Medical Clinic

Sgt. David Champagne
C Co 199th Spt BN 256 BCT
APO AE 09326
E-mail: david.champagne@us.army.mil

Fort Endurance

SGM Donna Ring
917th CSG
FOB Endurance, Iraq
E-mail: donna.ring@us.army.mil

DIEGO GARCIA

The Diego Garcia Modelers

SK1 Ronald Bayani MSCO
Diego Garcia PSC 466
Box 36 FPO AP 96595
E-mail: sk1.bayani@msc.navy.mil

or

Lourdes Jumaqio
ROICC NAVFAC Far East PSC 466
Box 61 FPO AP 96595
E-mail: JumaqioL@dg.navy.mil

How much does it cost to ship to the clubs?

Estimate roughly $2 per pound to ship your donations overseas.

How long does it take for the packages to get there?

Although the USPS estimates up to six weeks for Parcel Post, it has generally taken about two to three weeks for packages to reach soldiers overseas.

What postal product should I use to ship my package?

Try to ship all packages via Parcel Post. Shipping via Priority or Express mail will only make the package arrive at its final U.S. shipping facility more quickly. Items shipped Priority or Express mail do not receive a greater priority in the military mail system.

Can I make monetary donations instead of shipping a package?

Money is not all that useful overseas, so making monetary donations to the clubs can be difficult. Squadron Mail Order has established an account for the Bagram Hobby Club; members are able to purchase kits and supplies through it. Squadron has been kind enough to match all donations 100 percent. Donations to Squadron should be sent to:

Squadron Mail Order
Bagram Hobby Club
Attn.: Chuck
1115 Crowley Dr.
Carrollton, TX 75011-5010

Other suggestions for making monetary donations include contacting your local IPMS club to see if members are undertaking a donation drive. They might be able to accept your donation in order to purchase additional supplies to send with their packages.

Where can I find out additional information about the clubs?

Visit www.ipmsusa.org and click on "Supporting Our Troops!" You'll also be able to read about what others have donated.

Special thanks to Mike Pabis of IPMS Craig Hewitt in Phoenix, Ariz., for assembling this information. **FSM**

New Products

Compiled by Monica Freitag

AIRCRAFT

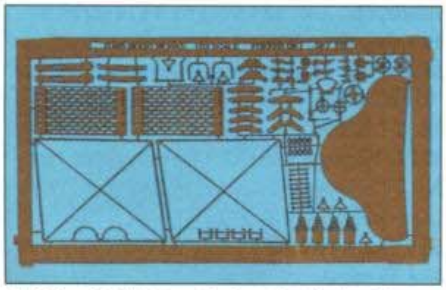
1/24 Scale Kits

Curtiss P40: Pearl Harbor "America Strikes Back," No. VF2402, $119.98. Look for a detailed review in a future issue of FSM. From Vintage Fighter Series, available from Squadron Mail Order.

1/32 Scale Kits

▲ **F/A-18D Hornet "Night Attack,"** No. 12103, $159. Weapons and five figures included. From Academy, available from Model Rectifier Corporation.

1/32 Detail Sets



▲ **Fokker Dr.1 photoetched set for Roden,** No. 510, $12. From Tom's Modelworks.

▲ **F-14 intake Covers,** No. 501/red, 502/black, $6 each. From Steel Beach Accessories, avaliable at spruebrothers.com.

1/35 Scale Kits

▲ **Westland Lynx Tow Mk-7,** No. H3501, $190. Resin with photoetched-brass details. From Accurate Armour, Ltd.

Westland Lynx Tow Mk-7 IRCM and filters, No. H3502, $220. Resin with photoetched-brass details. From Accurate Armour, Ltd.

1/48 Scale Kits

▲ **Halberstadt D.II,** No. PGX0118, $54.98. From Blue Max, available from Squadron Mail Order.

▲ **Kawanishi N1K1-Ja Shiden [George] Type 11 Koh,** No. 09089, $28.95. Japanese Navy Interceptor. From Hasegawa, available from Dragon Models USA.

▲ **Brewster F2A-1 Buffalo,** No. 4100, $45. US Navy Version. Look for a detailed review in a future issue of FSM. From Classic Airframes.

▲ **Sopwith 7F1 "Snipe,"** No. HI0015, $49.98. From Hi-Tech WWI, available from Squadron Mail Order.

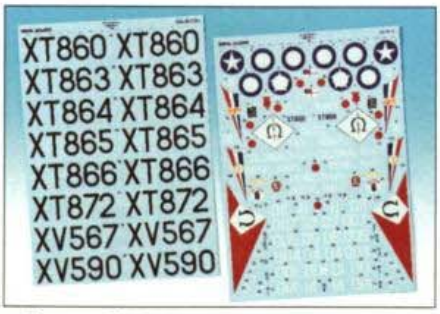
Sopwith "Salamander TF2," No. HI0017, $49.98. From Hi-Tech WWI, available from Squadron Mail Order.

1/48 Decal Sets

RAF Jaguars, No. MAS48122, $23.75. From The Aviation Workshop Publications Ltd.

Curtiss Cuties No. 1: P-40F, No. PYND48023, $16.99. From Meteor Productions.

▲ **Curtiss Cuties No. 2: P-40E,** No. PYND48025, $19.99. From Meteor Productions.



▲ **Phantom FG. 1,** No. MA-48126, $15.95. Also available in 1/72 at $11.05. From Model Alliance Decals, available from The Aviation Workshop Publications Ltd.

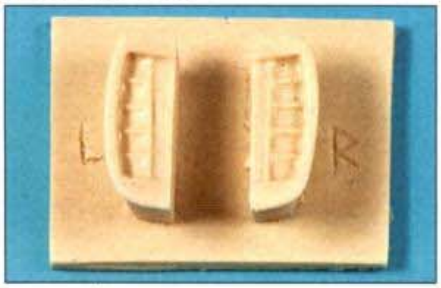
1/48 Detail Sets

F-14 intake covers, No. 201/red, 202/black, 203/yellow and 204/blue. $6 each. From Steel Beach Accessories, available at spruebrothers.com.

F-16 large mouth intake cover, No. 109, $5. From Steel Beach Accessories, available at spruebrothers.com.

New Products

F-16 small mouth intake cover, No. 108, $5. From Steel Beach Accessories, available at spruebrothers.com.



▲ **F-4 intake covers,** No. 114, $8. From Steel Beach Accessories, available at spruebrothers.com.
F-14A/B update set, No. 101, $15. From Steel Beach Accessories, available at spruebrothers.com.

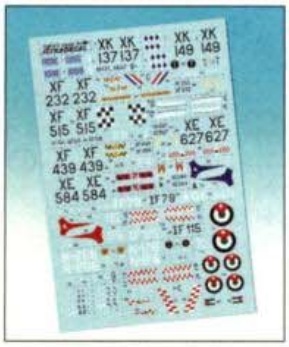
1/72 Scale Kits

Ju 87G-2 Stuka "Kanonen Vogel," No. 12404, $14. From Academy, available from Model Rectifier Corporation.

▲ **Lockheed XFV-1,** No. 72007, $32.98. From Valom, available from Squadron Mail Order.

1/72 Decal Sets

Boeing KC-135E 141st ARS/108th ARW 2004 Tiger Meet, No. MAS729012, $16.44. From The Aviation Workshop Publications Ltd.



◄ **Hawker Hunter F.Mk 6 for Revell,** No. X72058, $8.59. From Hannants.

Hunting Percival Pembroke C.1, No. MAS-729013, $11.05. From Model Alliance Decals, available from The Aviation Workshop Publications Ltd.

1/72 Detail Sets

F-18E/F Super Hornet intake covers, No. 305, $6. From Steel Beach Accessories, available at spruebrothers.com.

▲ **F-18A/B/C/D intake covers,** No. 401, $5. From Steel Beach Accessories, available at spruebrothers.com.
F-14 intake covers, No. 301/red, 302/black, 303/yellow and 304/blue, $6 each. From Steel Beach Accessories, available at spruebrothers.com.

1/72 Die Cast

Platinum Collectible Assortment, $10.98 each. 14 different types of aircraft and 3 different paint schemes from the Air Forces during the war. From Model Rectifier Corporation.
P-47D Thunderbolt 353rd FS, 354th FS, No. 50126, $24.95. From Dragon Models USA.
F-14A Tomcat, No. 50045, $39.95. From Dragon Models, Ltd.

1/144 Scale Kits

▲ **UH-60L Blackhawk,** No. 4578, $7.95. From Dragon Models, Ltd.

▲ **MiG-17 PF,** No. 14402, $11.48. From Jach, available from Attack.
Shenyang JJ-5, No. 14403, $11.48. From Jach, available from Attack.
MiG-17F, No. 14401, $11.48. From Jach, available from Attack.

PSA 777 Smiley Face, No. 15003, $45, Flights of Fancy series. From Minicraft Models Inc.
Eastern 777 Wings of Man, No. 15002, $45. Flights of Fancy series. From Minicraft Models Inc.
Pan American 777 China Clipper, No. 15001, $45. Flights of Fancy series. From Minicraft Models Inc.

ARMOR

1/35 Scale Kits

SdKfz. 251/7 Ausf. D '39-'45 Series, No. 6223, $37.95. From Dragon Models, Ltd.

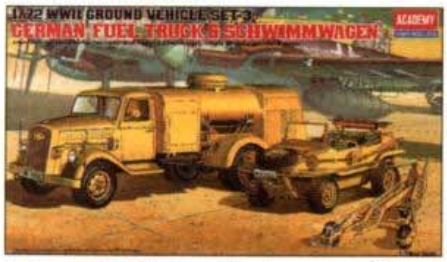
▲ **SdKfz.182 King Tiger Henschel turret Battle of the Bulge SpzAbt 501,** No. 6254, $37.95. From Dragon Models, Ltd.
JGSDF NBC (nuclear and biochemical) detection vehicle, No. 330, $24.95. From Trumpeter, available from Stevens International.
88mm FLAK 36 with flak artillery crew '39-'45 Series, No. 6260, $34.95. From Dragon Models USA.
Mk.V "Hermaphrodite" WWI heavy battle tank, No. EM4005, $53.45. From Emhar, available from Squadron Mail Order.
US Airborne tank M551 Sheridan, No. 13011, $38. From Academy, available from Model Rectifier Corporation.
M1 Panther II mine detection and clearing vehicle, No. 3534, $37.95. From from Dragon Models USA.

▲ **M4A3(76)W VVSS Sherman Battle of the Bulge '39-'45 Series,** No. 6255, $37.95. From Dragon Models USA.
SdKfz 265 Kleine Panzerbefehlswagen I '39-'45 Series, No. 6222, $29.95. From Dragon Models USA.

1/35 Detail Sets

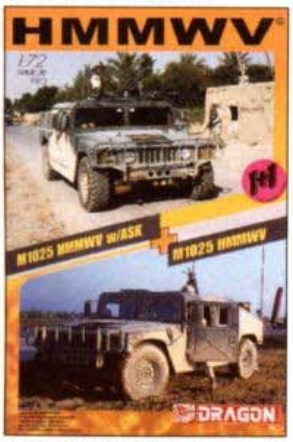
◀ **8.8cm L/71 ammunition for PaK43/41 anti-tank gun and Nashorn, Jagdpanther, Elefant, Tiger II,** No. AFV-35086, $19. From AFV Club, available from Merit International.

1/72 Scale Kits



▲ **German Fuel Truck and Scwimmwagen,** No. 13401, $19. WWII Ground Vehicle Set-3. From Academy available from Model Rectifier Corporation.

Famo SdKfz 9/18ton halftrack, No. 7203, $24.95. From Trumpeter, available from Stevens International.



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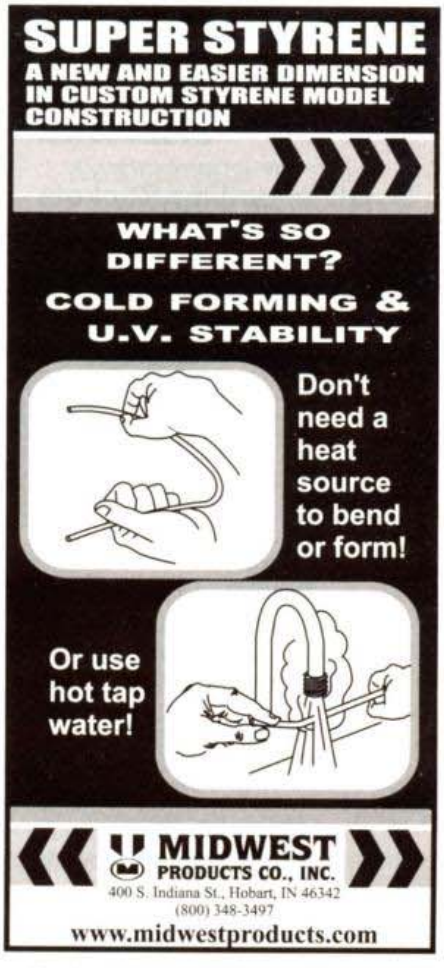

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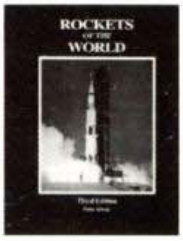

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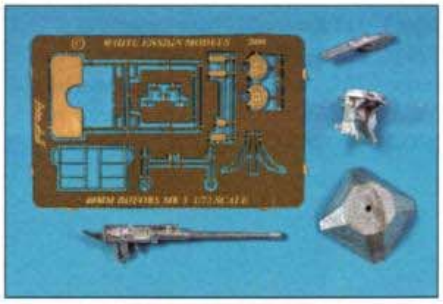

▲ **40 mm Bofors, MK III, Single Mount,** No. PE7217, $7.12 with photoetched brass. From White Ensign Models Ltd.

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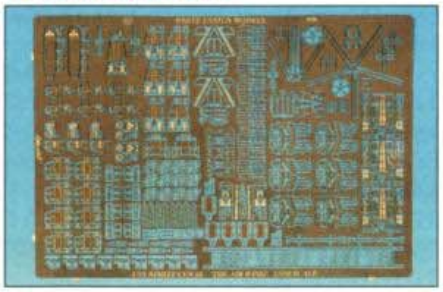

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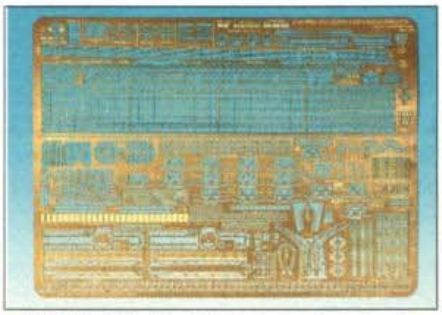

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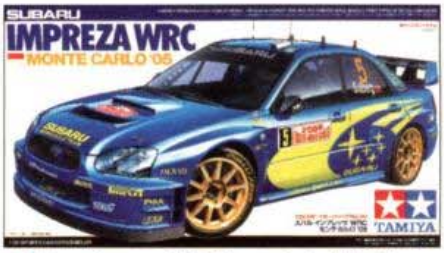

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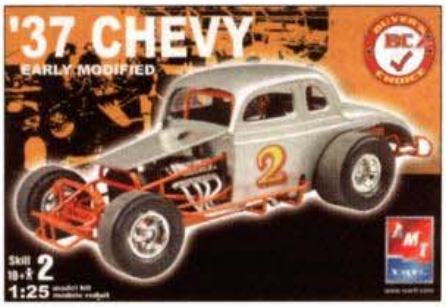

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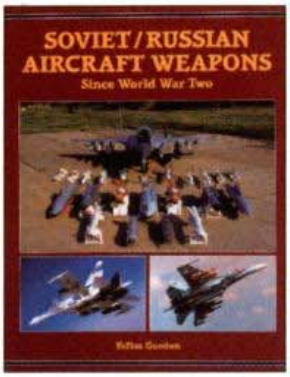

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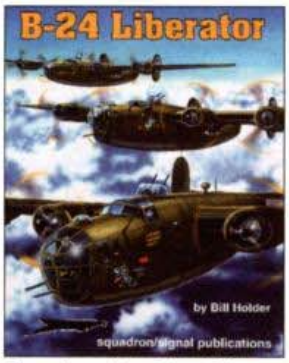

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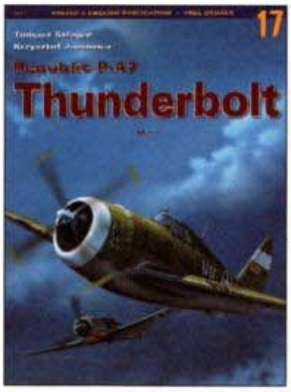

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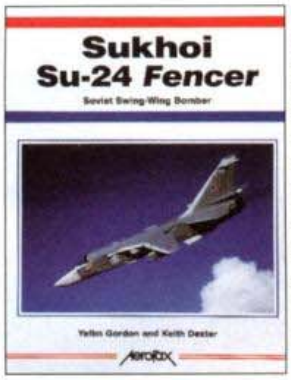

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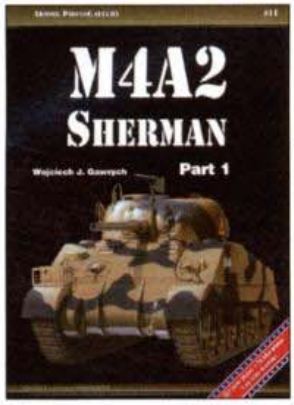

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Showcase

Dan Jayne's cutaway F-105D

Trumpeter's 1/32 scale F-105D Thunderchief is another magnificent cutaway model from Dan Jayne. See also his cutaway 1/32 Bf 109G in the October 2004 FSM, and a Portfolio of his cutaways in the September 2004 FSM.

No dull, hollow Thud here

Having completed seven World War II aircraft cutaway models, I was looking for something different. When Trumpeter came out with its 1/32 scale kit of my favorite jet fighter, I had found what I was looking for.

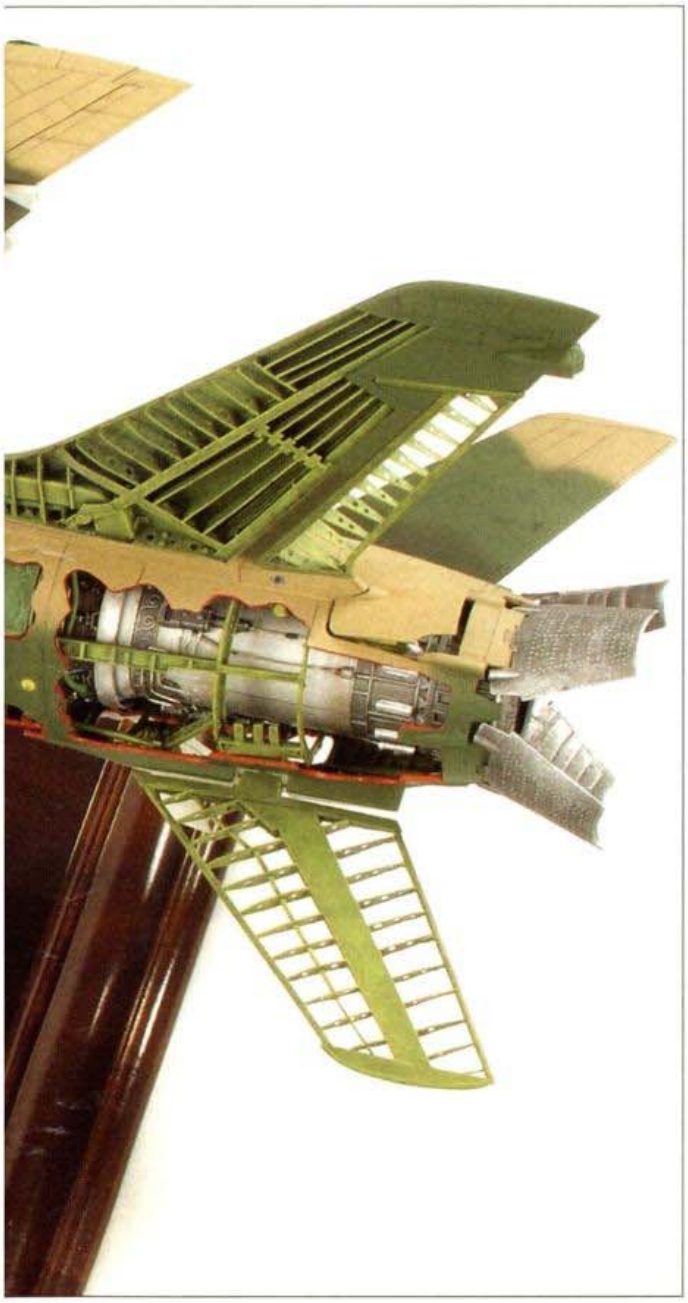
I didn't have scale drawings of the structure of the "Thud," but the see-through drawing in William Green's *An Illustrated Anatomy of the World's Fighters* and a study of the kit parts allowed me to draw my own.

Nearly all the details were scratchbuilt from Evergreen styrene stock and wire. The hardest part was the skeletal structure of the left wing. After drawing the framework, it was just a matter of pinning and gluing bits of styrene over the plans.

I cut uneven viewing ports into the left fuselage half, then built up the detail inside from styrene. The kit's engine is OK, but needed more styrene and wire detail.

I also added detail to the landing gear struts and doors, and set the nose and left gear in half-retracted positions.

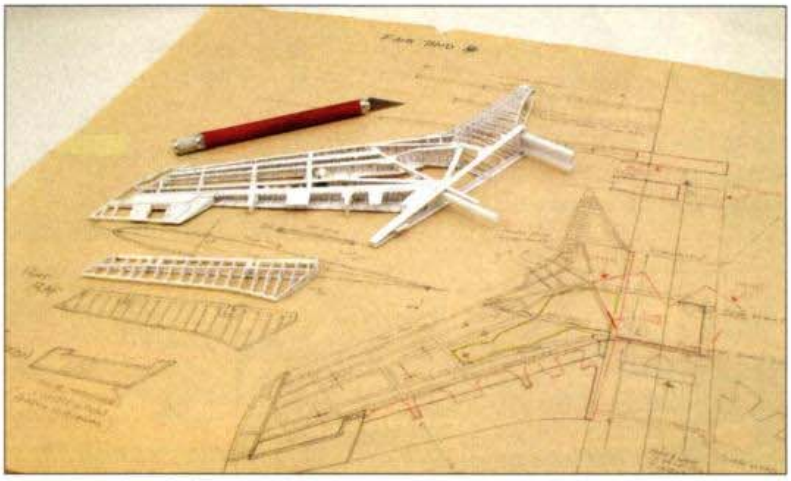
Photos by Chuck Stewart



The right side of the aircraft is largely covered, built right from the box, and painted with the typical four-color Tactical scheme of the early 1970s.

The model looks as though it was magically transported 30 years into the future. Aficionados of the movie "Back to the Future" might appreciate the "flux capacitor" I added to the interior detail. Can you find it? (See page 73.) Just imagine what that movie would have been like if … "Doc! You made a time machine – out of a Thunderchief?" **FSM**

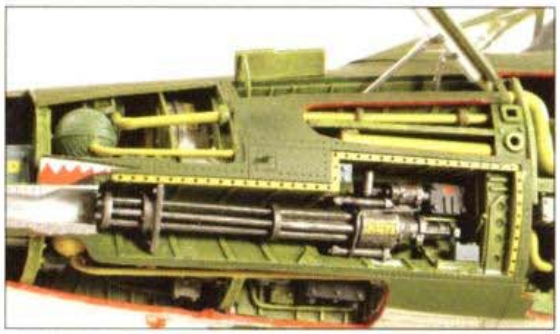
Dan's inspiration was this see-through drawing in *An Illustrated Anatomy of the World's Fighters*. The red-orange stand displays the model with the landing gear posed midway in its rotation.



Using a see-through drawing and the kit wing as a guide, Dan laid out the wing's construction diagram and built the skeletal structure from styrene stock.

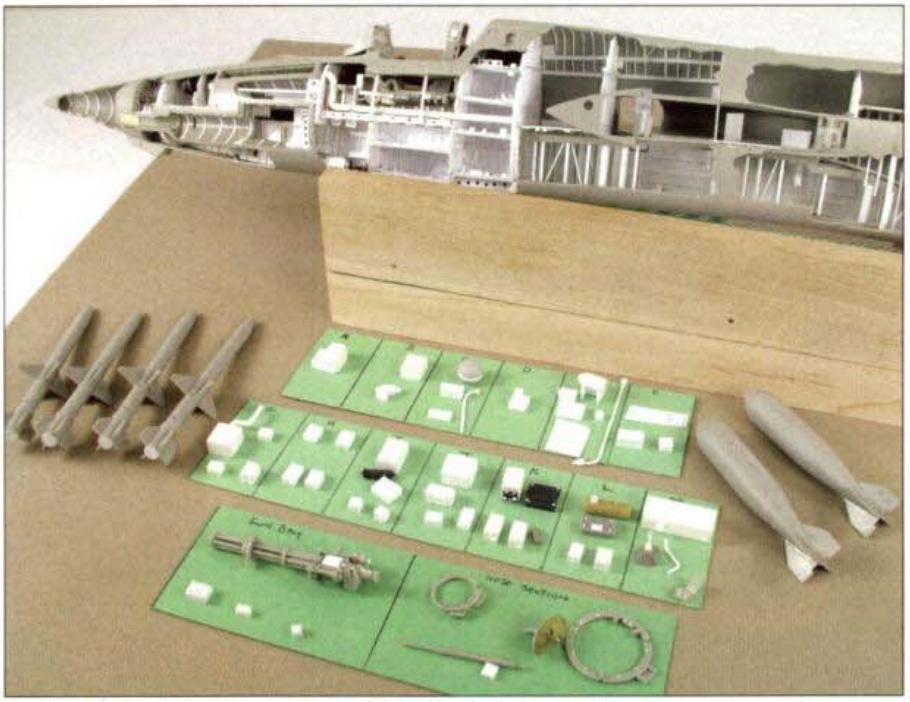
Dan cut away viewing ports all along the left half of the fuselage.

The right side of the model looks "normal" with few open areas. This provides the viewer a chance to see the exterior paint scheme.

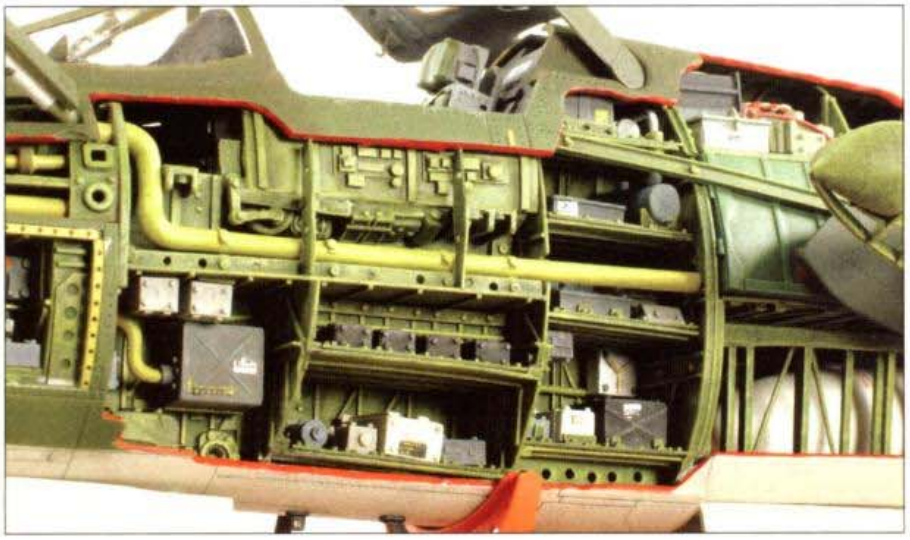


The kit's M-60 Vulcan cannon is the centerpiece for the forward fuselage.

Dan also built up the fin and engine compartment structures, making room for the kit's Pratt & Whitney J-75 engine.

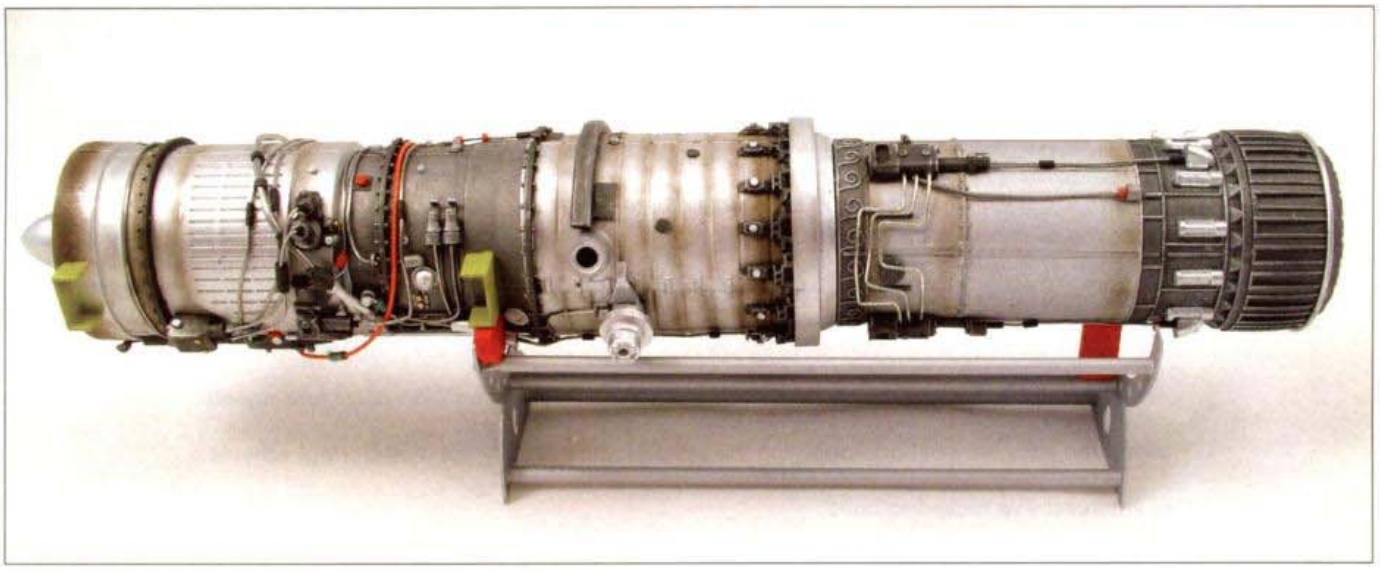


Dan laid out the interior components and Shrike missiles before installing them on the model.



Right: Lots of styrene boxes and conduits were added to the cockpit section.

Below: Trumpeter's engine was dressed up with more detail made from styrene and wire.



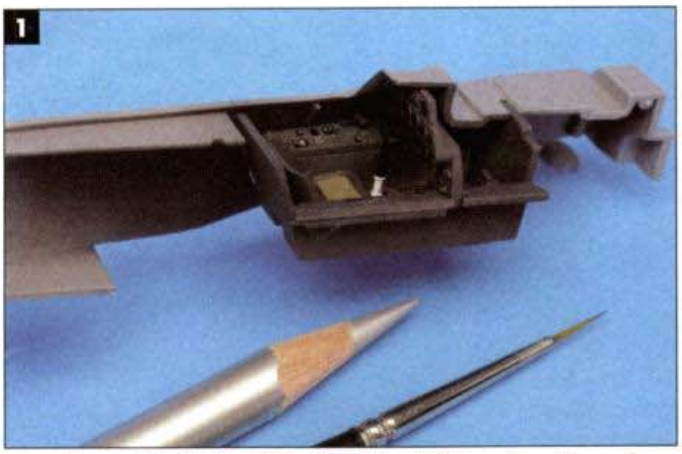
A complex camouflage scheme doesn't always require a high-end airbrush. Matthew Usher applied this eye-catching scheme to his Fw 190 using a simple single-action Badger 350.

Easy airbrush camouflage

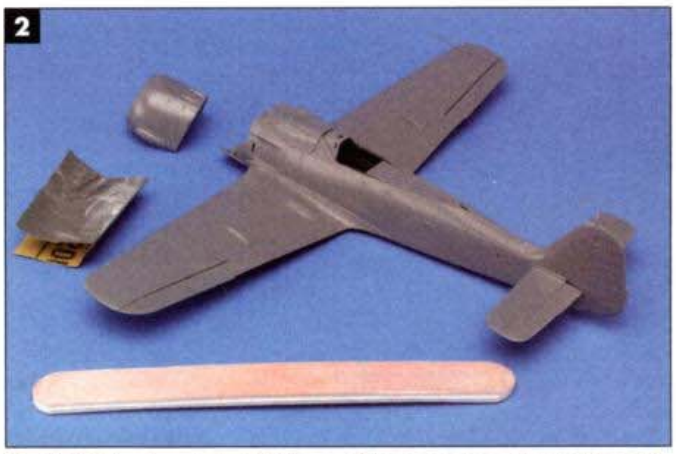
Simplify complex patterns with "soft masks"

By Matthew Usher

I love Luftwaffe aircraft, but as a modeler, they drive me crazy – the machines are interesting and great to model, but most of them have horribly complicated, seemingly impossible-to-airbrush camouflage schemes. More often than not, I find myself taking the easy way out and applying the simplest (and usually the most-boring) scheme to whatever I've picked to build.

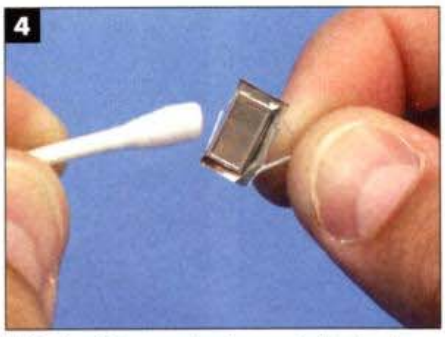


Assembly started with the pilot's office. Since Matthew planned on modeling his 190 with a closed cockpit, he didn't add any extra parts, but instead concentrated on highlighting the kit's great out-of-the-box detail. A fine-point paintbrush and a silver art pencil helped pick out the dials and switches.



The kit fits together nicely. A little gap-filling super glue and some fine-grit sanding took care of all the fuselage seams.

Not much of the 190's BMW 14-cylinder radial engine is visible inside the fuselage – a large cooling fan covers most of the opening. Matthew airbrushed the engine flat black then dry-brushed it with Floquil old silver enamel (No. 110100) to highlight the cooling-fin detail.



A lot of paint was going to go onto the fuselage, so Matthew masked the canopy with chrome Bare-Metal Foil. Working a pane at a time, he added a piece slightly larger than needed and burnished it with a clean cotton swab.

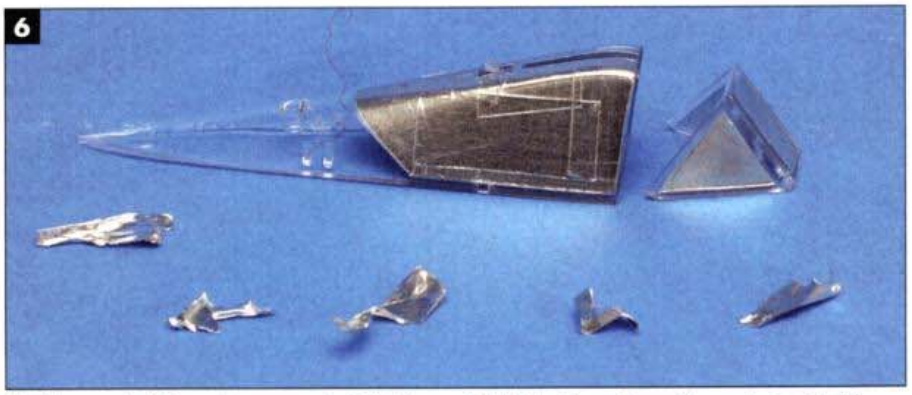
Trimming foil can be tricky. Matthew installed a brand-new No. 11 blade in his hobby knife, then blackened the blade with a permanent marker. The black finish cuts down on the reflections between the highly polished blade and foil and makes it easier to follow the line of the canopy framework during the trimming.

When I bought Tamiya's 1/48 scale Focke-Wulf Fw 190F-8 (No. 61039) I started to rethink things. The kit includes markings for a 190 stationed in Italy in 1944; its unusual tropical scheme was field-applied over the aircraft's factory finish. The upper-fuselage markings were completely painted out, and what markings remained were covered with bits of overspray. I was hooked. I knew I had to model that scheme, but how would I apply it?

As I plotted my plan of attack, I wondered if I could take things one step further – could I apply a complicated finish without breaking out one of my tricky-to-clean double-action airbrushes? The challenge was worth the effort.

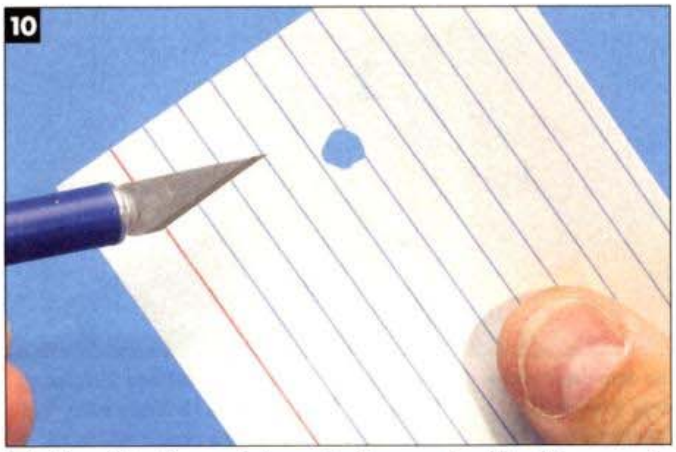
I have a soft spot for Badger's 350 airbrush. Decades ago, it was one of my first serious modeling tools. It was the airbrush I learned to paint with, and with it my models stopped looking like spray-painted toys and started looking like realistically finished miniatures. Even though I've graduated to more expensive airbrushes since then, I've always kept a 350 ready to go in my toolbox.

I thought combining the 190 and the 350 would be a fun challenge, and I'd have the opportunity to dust off another one of my favorite painting tools, soft masks. Soft masking enables you to apply complicated schemes with simple tools – it's an easy-to-learn technique that produces striking results. Follow along as I give my "butcher bird" a cool camouflage pattern without making things so complicated it spoils all the fun.

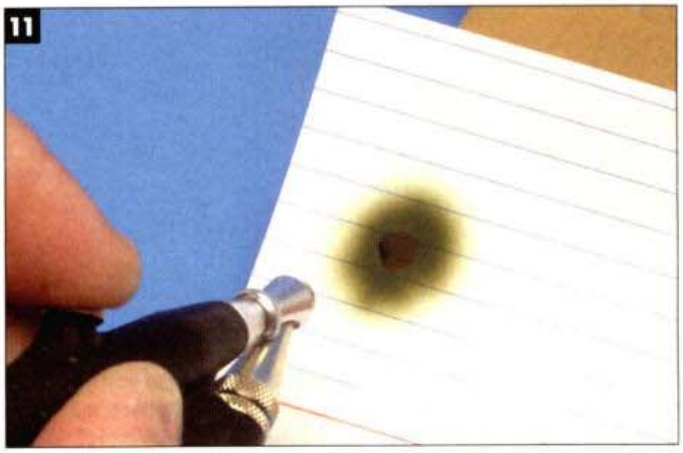


Matthew masked the entire canopy, installed the headrest, then added the parts to the fuselage with Microscale Micro Kristal Klear.

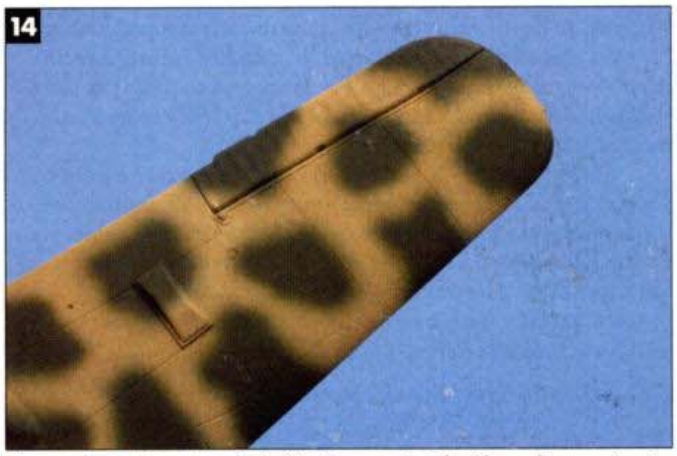
Right: Matthew planned to use Testor Model Master enamels for his 190's finish. Many of the Model Master Luftwaffe colors have a scale semi-gloss finish. To give the paints a dead-flat finish, Matthew thinned them with Ronsonol lighter fluid for airbrushing, using the same mixing ratios he uses for standard paint thinner.



A "soft mask" cut from an index card will narrow the airbrush's spray pattern and still provide a soft edge for the camouflage pattern. Matthew cut a roughly circular hole in one end of a card with a hobby knife.

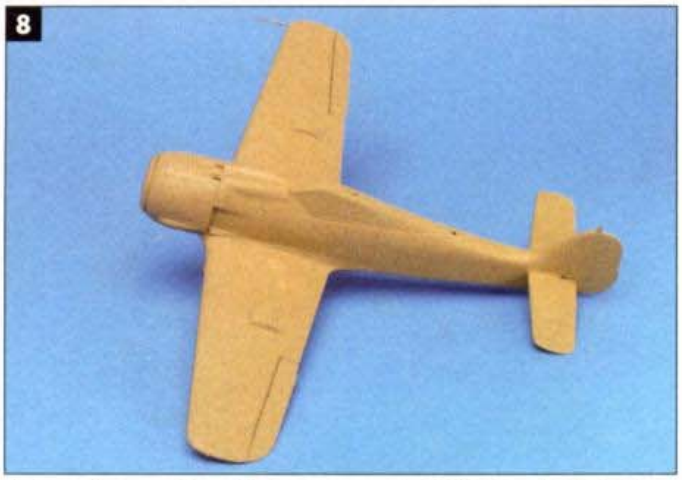


Holding the card about ¼" from the surface of the model, Matthew applied a quick burst of the camouflage color, RLM 80 olivgrun (Testor Model Master No. 2089).

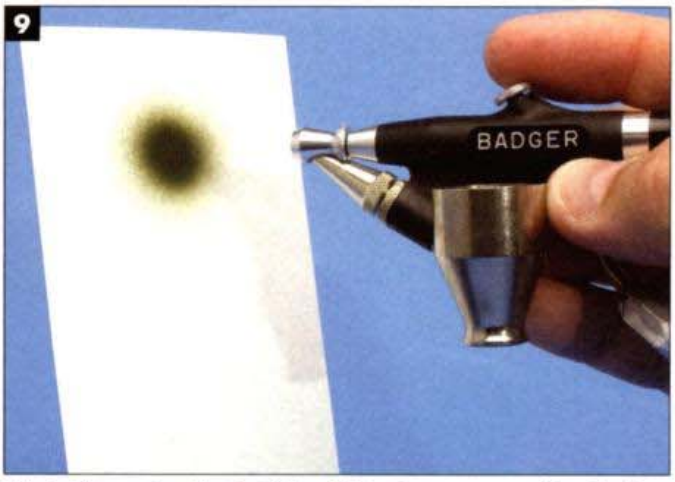


Even up close, the pattern looks like it was painted with an ultra-precise airbrush. A little green overspray ended up where it shouldn't have, so when the green paint was dry, Matthew cut a fresh soft-mask card, filled the airbrush with sandgelb paint, and went back and "erased" the overspray.

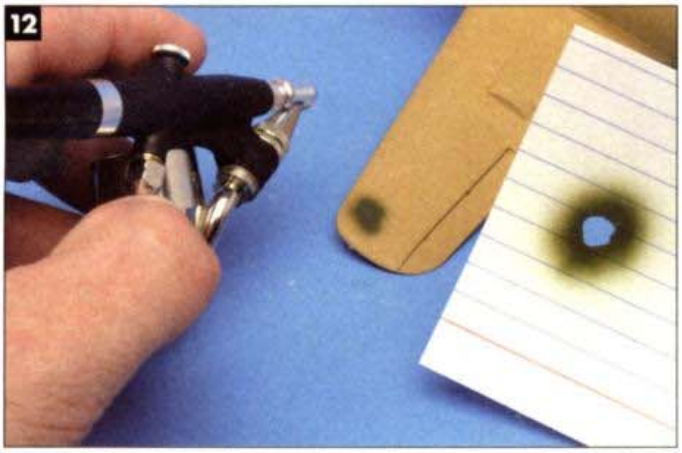
After a couple days of drying time, Matthew masked the model and applied the underside color, RLM 78 hellblau (Testor Model Master No. 2087). A hard line separates it and the upper-fuselage camouflage. When the hellblau was dry he masked and painted the wheel wells gray.



Matthew first gave the entire fuselage a coat of RLM 79 sandgelb (Testor Model Master No. 2088). It's the base color for the camouflage pattern, and the overall coat works nicely as a primer coat to point out imperfections.

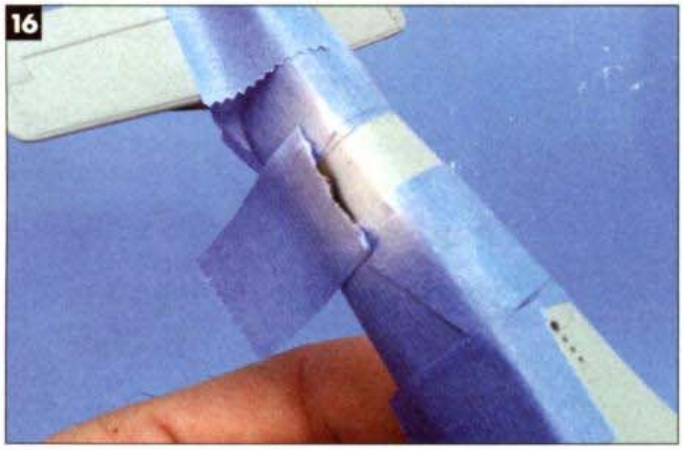


Fitted with a medium tip, the Badger 350 produces a spray pattern that's too big for fine camouflage work. There's a way around that, though.

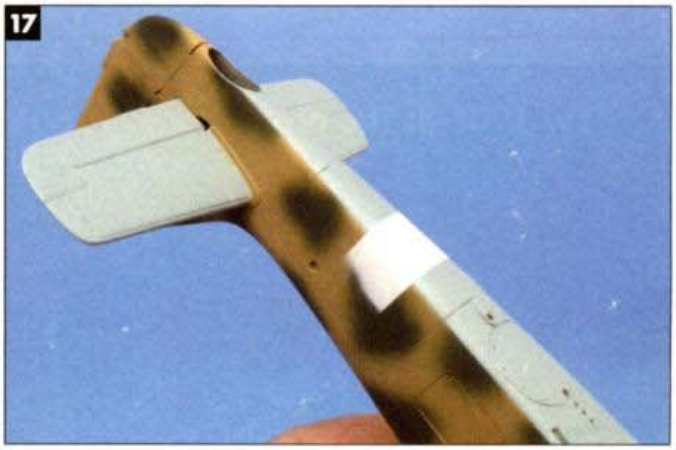


Despite the large burst of paint, only a small spot makes it way onto the model's wing through the hole in the card. By working slowly and applying the pattern a spot at a time, Matthew was able to apply the pattern precisely.

Overlapping the spots produced larger shapes and patterns. Starting at the left wingtip, Matthew applied the pattern a spot at a time as he worked toward the fuselage. When a soft-mask card soaked up too much paint, he discarded it and cut a new one. Note that he let the pattern overlap onto the canopy and around the lower edge of the fuselage.



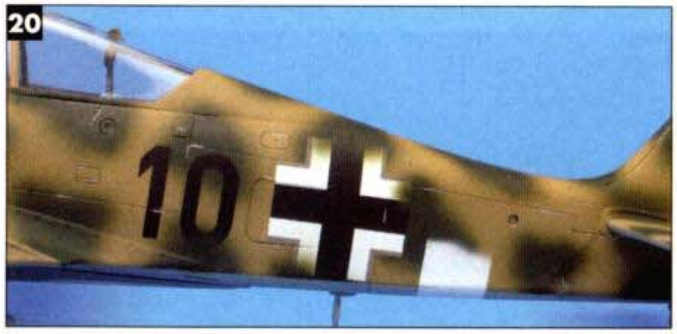
A decal is provided for the white ID band on the tail, but Matthew decided it would be easier to apply with paint. He masked the band's vertical edges with tightly applied masking tape, but for the upper edge, he tore a larger piece of tape and didn't stick it all the way down.



The hard and soft edges of the tape produce an ID band that looks like it's been partially covered by the tan-and-green camouflage pattern.

With the model painted, Matthew moved on to the decals. After applying a coat of Future floor polish to the model, Matthew applied the kit decals using a little Microscale Micro Set to tighten them down.

Most of the upper fuselage markings were obscured by the field-applied camouflage pattern, but the balkenkreuz and number on the fuselage side weren't totally covered.



After the decals dried, Matthew gave the model an overall coat of Testor flat clear lacquer (No. 2015). When it cured, he broke out the green paint and soft-mask cards again and blended the edges of the decals into the camouflage scheme. This gives the scheme a field-applied look – as if a hasty groundcrewman got a little overspray onto the factory-applied markings. Remember, when you're painting a potential target, you tend to work quickly!

A little silver paint simulated chipped paint along the 190's panel lines, and some pastel powder made realistic-looking exhaust stains. The finished model's unusual field-applied scheme really makes it stand out in Matthew's collection of World War II fighters.

Fw 190F-8: The ground-attack "butcher bird"

In the early stages of World War II, the Ju 87 Stuka was one of Germany's best weapons. Especially effective in the air-to-ground support role, it was perfect for Germany's blitzkrieg across Europe.

The Stuka's days were numbered, though. As the war rolled on, the aircraft's lack of speed and maneuverability made it an easy target. Focke-Wulf's Fw 190, one of the Luftwaffe's best fighters, made an ideal replacement thanks to its tough construction and versatility. It went into ground-attack service as the Fw 190F in 1943. The aircraft was based on the airframe of the Fw 190A and was fitted with extra armor protection. The outboard 20mm cannons were removed and underwing weapons racks were installed. The Fw 190F-8 (modeled here) started rolling off assembly lines in 1944 and was the most widely produced Fw 190 of the "F" series.

REFERENCES

Fw 190A, F, and G in Action Brian Filley, Squadron/Signal Publications, Carrollton, Texas, 1999

Production Line to Frontline 5: Focke-Wulf Fw 190 Malcolm V. Lowe, Osprey/MBI Publishing, Osceola, Wisconsin, 2003

Walk Around No. 22: Focke-Wulf Fw 190A/F Malcolm Laing and E. Brown Ryle, Squadron/Signal Publications, Carrollton, Texas, 2000

Prepping a PATTON

Adding simple scratchbuilt details to Esci's small-scale M48A3

Story and photos by Russell M. Field

After returning to modeling from a 25-year hiatus, I focused primarily on building World War II aircraft and I never really considered modeling armor or military vehicles until I decided to try something new.

I spotted the old Esci 1/72 scale kit of the M48A3 Patton in one of my favorite shops. The box art was enticing, though the M48 series is post-WWII, I liked the look, and the price was right. I said, "what the heck," and added another kit to the always-growing pile.

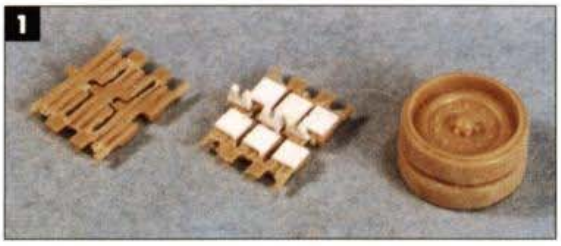
My intention was to build this kit straight out of the box, with a little extra detail and stowage here and there. After all, I'm a WWII fan, and this was just a temporary diversion – like that's ever stopped me from going overboard.

The Esci road wheels and tracks leave a lot to be desired; each pair of double road wheels is represented as a single, double-wide wheel (quite common in small-scale armor, especially with older kits), and the inside surfaces of the tracks are devoid of detail. The actual tank has pads and prominent guide teeth.

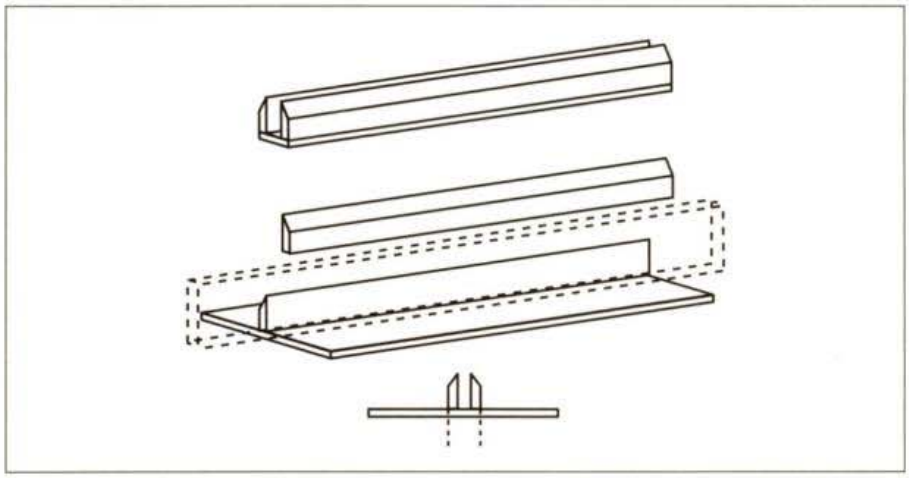
I did hold to my plan on one objective: No aftermarket items for basic kit enhancement (the headlight lenses were the sole exception). I decided that using commercial after-market stowage items was acceptable.

The only kit features I replaced with scratchbuilt items were the periscopes, lifting rings, and the gas cans. If I had it to do again, I would also replace the infantry rails on the turret sides with scale-dimension wire. I realized too late the kit rails are way too thick, but most other enhancements were alterations of existing kit features or additions of spare parts.

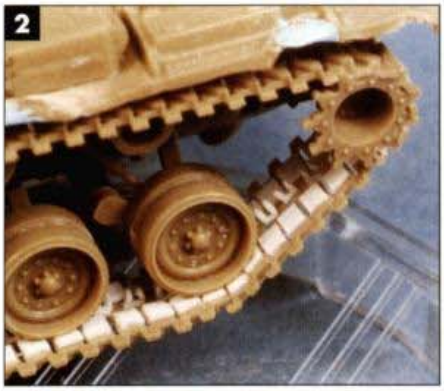
I often wonder how many modelers plan to build something straight from the box and end up going overboard with details and correcting parts. My little M48 Patton required a minimal amount of extra work to make it stand out. With some basic modeling skills and materials, you can really improve the quality of the model. **FSM**



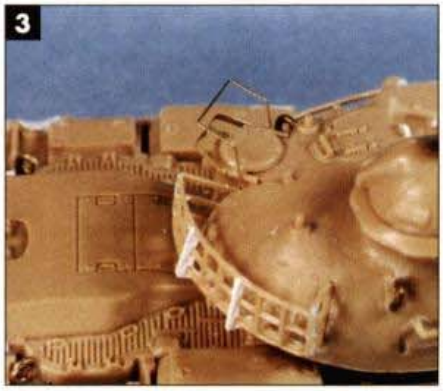
I modified the kit tracks (left) with guide teeth and contact pads (center) and cut a groove into the road wheels to simulate two separate wheels.



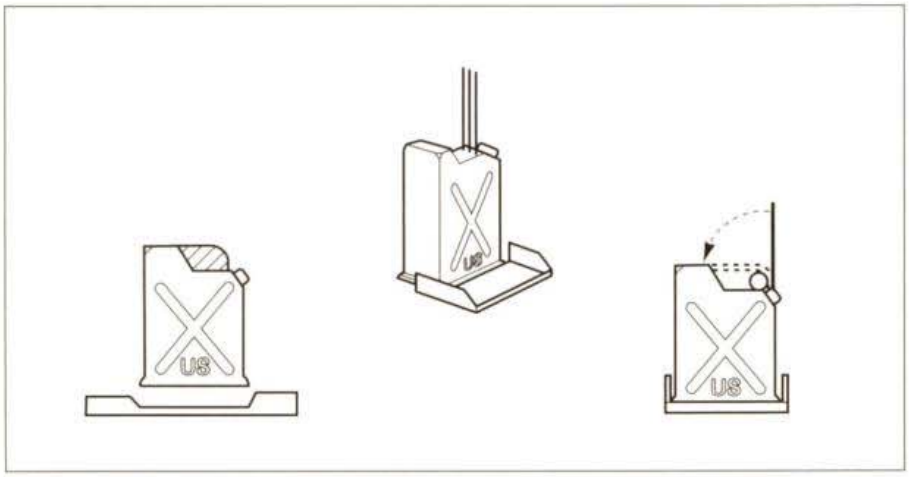
By gluing styrene stock and cutting a section from the length, I was able to create the individual guide teeth.



The improved links add a vital missing component to the tracks.



Additions included a storage basket made from brass wire and strip, and styrene braces for the bustle rack. I also replaced the lifting rings with brass.



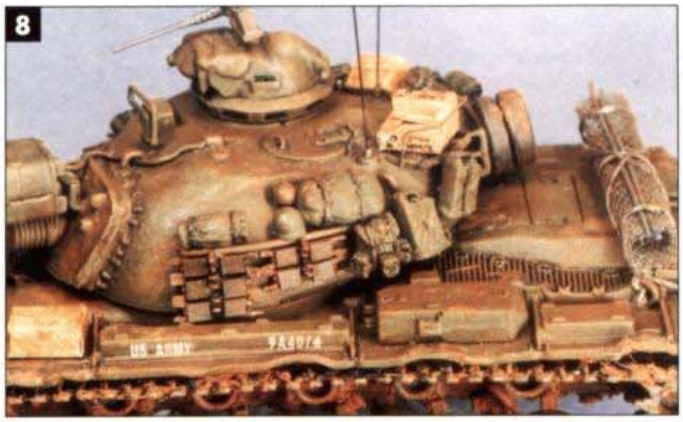
I removed the solid handles from my cast-resin Jerry cans, replacing them with thin wire folded over and glued into position. The holding racks were made from sheet brass using a paper template.

The packs and bedrolls are resin parts from Greif, coupled with a few resin copies I made. The ration boxes are 1/35 scale Verlinden boxes, reduced on a copier to 1/72 scale and soaked in tea to achieve the slightly yellowed color. The road wheel is from a spare kit.

I covered the searchlight with tissue to simulate the protective cover and puttied around the mantlet to simulate the canvas that prevents rain from entering the turret through the barrel opening. The hold-down strips were made from thin plastic. The conduit for the searchlight is made from thin solder.

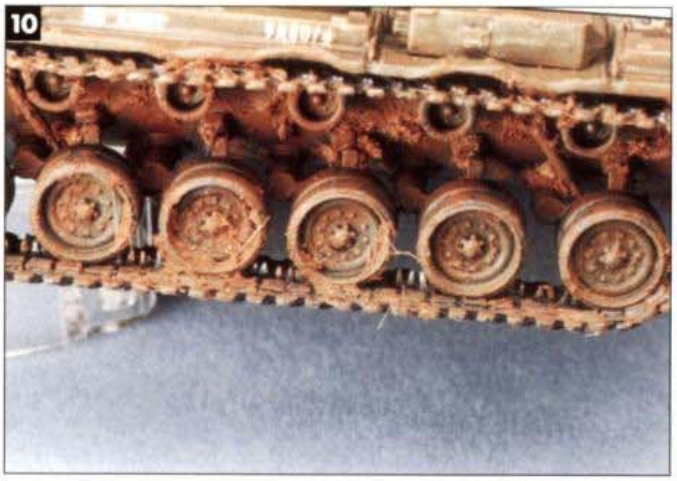
Once the mantlet and searchlight were completed, they were weathered with subtle dry-brushing. I added 1mm colored lenses from Greif.

The additions and changes to the model are apparent here. Bending plastic and adding putty to simulate crumpled metal created some minor battle damage.



The model is painted with Testor's Model Master olive drab (FS 34087). The tracks are sprayed with burnt umber, then the rubber portions of the treads and road wheels are hand-brushed with dark charcoal gray. The main gun mantlet cover, searchlight cover, and cupola tarp are painted with Testor's Model Master dark earth.

The model received a wash of burnt umber followed by dry-brushing with olive green oil paint. I dipped an eye-makeup sponge in silver Rub n` Buff and wiped it almost dry, then patted on areas where regular wear and scuffing would be expected. These areas were then lightly dry-brushed around the edges with burnt sienna to simulate encroaching rust.



The mud is a mix of Testor putty, Vietnam mud paint (50/50 Polly Scale Rust and Testor Model Master red earth acrylics), Testor plastic cement and short-trimmed static grass. The entire tank from fenders down are dabbed with the mixture; higher areas are dabbed and dry-brushed with just paint. The net result was a reasonable simulation of the all-covering, clinging mud and dust of a convoy run.

The fencing is made from plastic floral mesh, rolled into shape and dry-brushed with silver. Fencing was often carried by U.S. tanks and set up around the vehicles while in defensive positions.

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The M47 and M48 Patton Tanks, Steven J. Zaloga and Jim Laurier, Osprey Publishing Ltd., London, England 1999. ISBN: 1-85532-825-9

M48 Patton in Action, Jim Mesko, Squadron/Signal Publications, Carrollton, Texas, 1984. ISBN: 0-89747-165-2

Warm thanks to several armor gurus and fellow modelers, with special thanks to Stephen C. Willoughby and John W. Howland.

Paul Boyer photo

Corsair correction

Building an accurate F4U-4 in 1/72 scale

By Joseph Hegedus

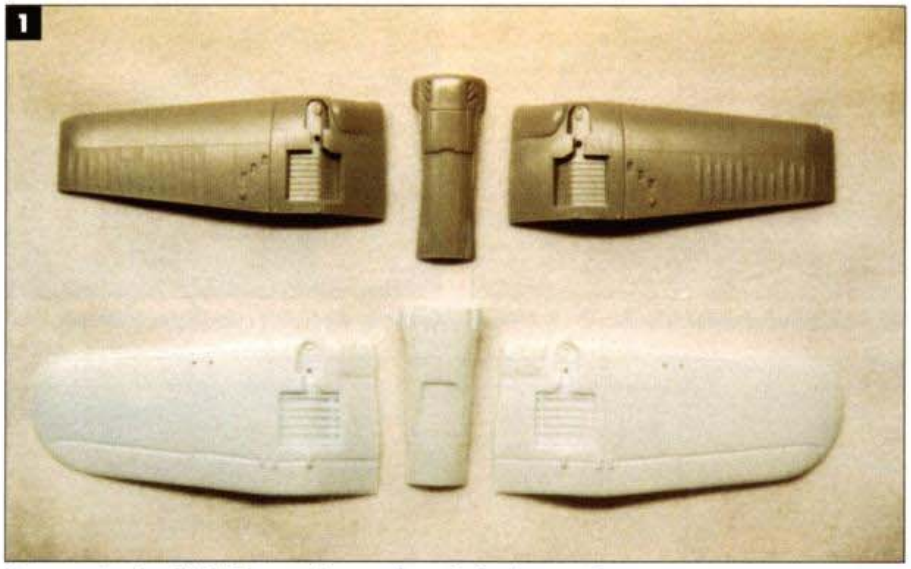
As a Corsair fan, I've long wanted a 1/72 scale injection-molded kit of the F4U-4. It's arguably the finest of the Corsair line and one of the finest fighters of World War II.

Three 1/72 scale kits from different manufacturers have claimed to be F4U-4s, but none has been accurate. Finally, I got impatient, and instead of waiting for an accurate kit, I decided to bite the bullet and kitbash the Hasegawa F4U-1D into an F4U-4. Here's how I made a more accurate F4U-4.

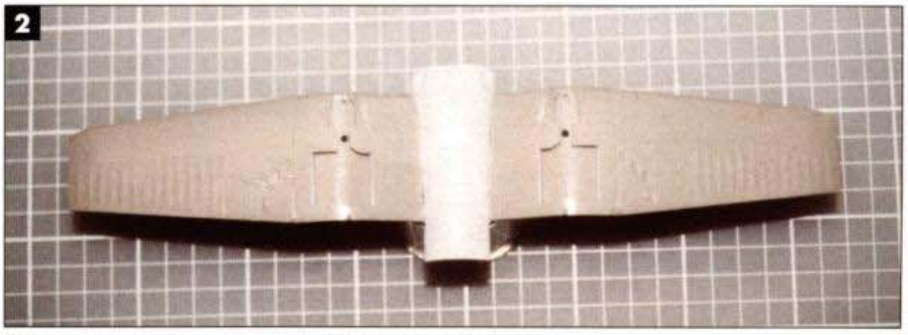
Wings

The F4U-4 had fabric-covered outer wing panels, like all previous Corsairs. Since I was building an early F4U-4 with machine-gun armament, modifying the kit wings to reflect the different gun configuration and fabric detail seemed excessive. Instead, I cut the belly fuselage section from the Hasegawa F4U-1D wing and the Italeri wing, **1**. I mated the Hasegawa wing sections to the Italeri center section, working carefully to keep the leading edge alignment and proper wing dihedral angles. Some trimming of the wing panel roots was necessary to keep the leading edges aligned. I used a cutting mat with a grid printed on it to align everything. I attached the wing panels to the center section with gap-filling super glue, **2**. After attaching the wings to the belly section, I flipped the wing over and added a pair of reinforcement strips to the inside surface, **3**. I used .010" styrene sheet I cut to size and bent to conform to the wing. The result was a new lower wing that mated to the Hasegawa fuselage almost perfectly.

Now I turned my attention to the underside of the wing to drill the mounting holes for the outer-panel rocket stubs. None of the Corsair kits includes correct stubs, so you'll need to scratchbuild them or find some in your spares

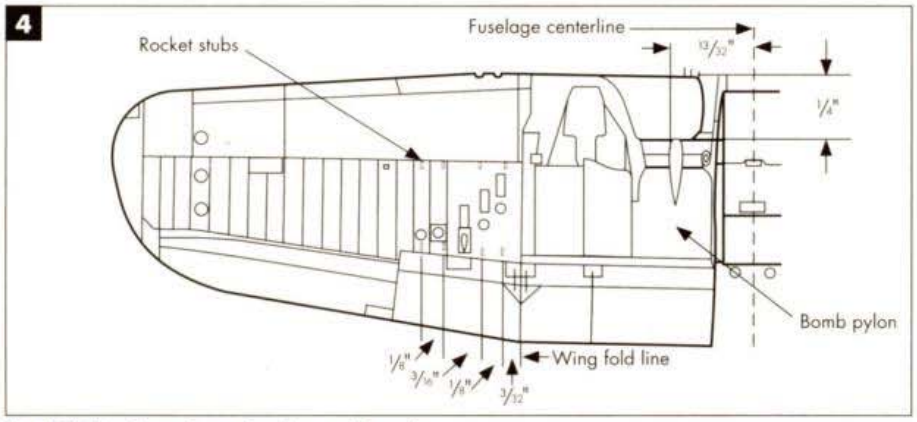


Hasegawa (top) and Italeri lower wings, cut from the fuselage section.

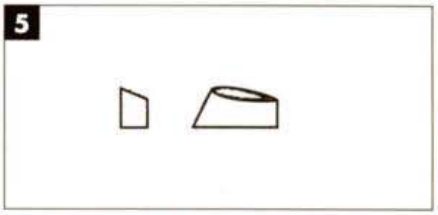


The Hasegawa wings attach to the Italeri fuselage section.

Styrene strips and gap-filling super glue reinforce the wing joints inside the assembly.



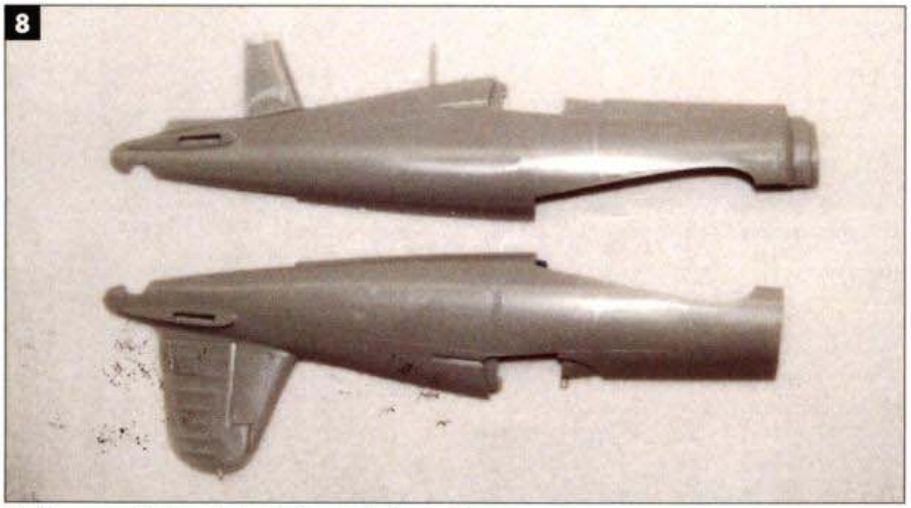
The F4U-4's wing-pylon and rocket-stub locations.



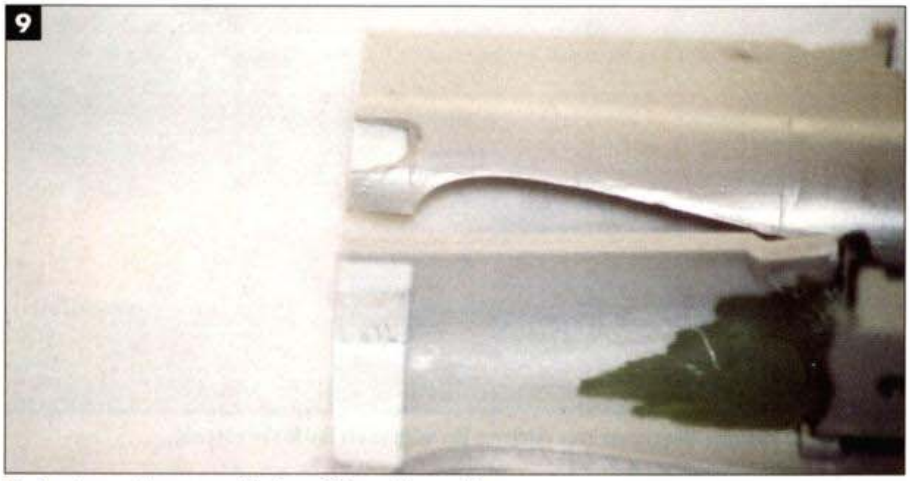
Joseph scratchbuilt the model's wing pylons.

The R-2800 radial engine from Revell's P-47M.

Cowl side view after assembly and filling.



The Hasegawa fuselage halves before and after cutting.



The fuselage exhaust trough before filling and smoothing.

box and locate them as shown, **4**. I took the former approach, cutting the stubs from 1/87 scale (HO) 2 x 4 styrene strip from Evergreen. The wing pylons can be scratchbuilt or taken from Tamiya's F4U-1D kit. If you scratchbuild them, laminate two layers of .040" sheet styrene, then cut the pylons out and file and sand them to shape, **5**. I used a set of pylons from the Tamiya kit, then assembled the wing according to the Hasegawa kit instructions.

The open hole in the flap is OK for most F4U-4s; only a few had the step either covered or filled in, as far as I can tell.

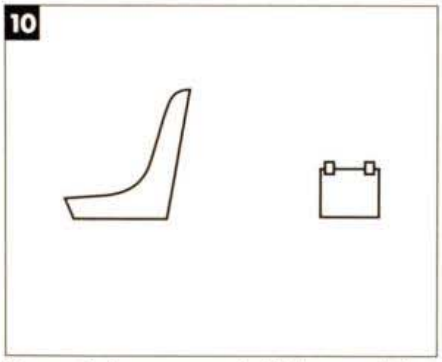
Engine and prop

The late-model R-2800 used in the F4U-4 has a significantly different crankcase than the earlier versions. The Revell 1/72 scale P-47M has a very nice example of the correct engine, **6**. No modification was required, other than drilling a hole in the middle of the aft cylinder bank to align and mount the engine to the fuselage. The white-metal propeller is from Aeroclub (No. PO45).

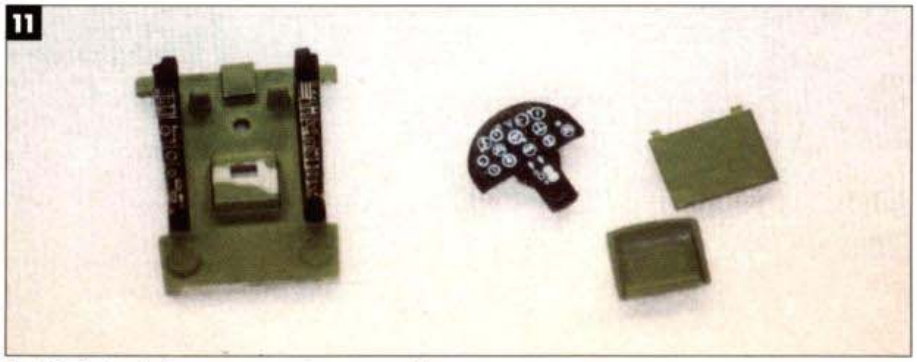
Fuselage

I started the fuselage modifications by removing the cowl from the Italeri F4U-7 fuselage halves. I cut the sections off at the rear edge of the cowl flaps using a razor saw. Using gap-filling super glue, I assembled the cowl, including the chin fairing, then filled the cowl-flap lines except for the top ones on each side. I scribed flaps into the cowl; there should be five 3/16"-tall flaps on each side, **7**.

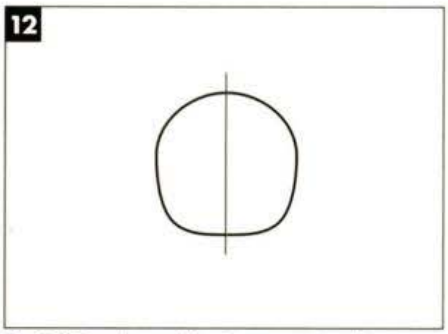
To modify the Hasegawa fuselage halves, I removed the forward end of each half at the panel line that's ¼" back from the front, **8**. Then, using the Italeri fuselage halves as a guide, I cut exhaust ramps into the Hasegawa fuselage. I did this by cutting away the opening, then gluing a section of .010" sheet styrene behind each opening, **9**. I used Squadron white putty to smooth things together. I applied the



Remove the lower seat and add the armored plate.

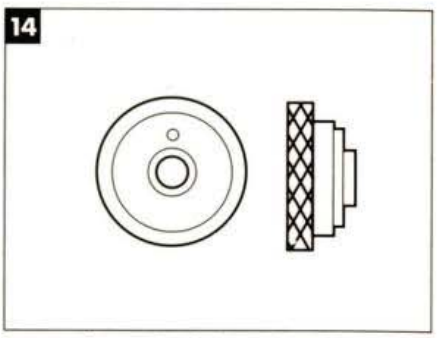


The finished cockpit components prior to assembly.



The 1/72 scale cowl/engine mounting plate template.

Cowl/engine mount fitted to the wing's center section.



Remove the crosshatched area from kit part C-6.

putty around the perimeter of the ramp, then loaded a brush with liquid cement and used it to smooth the putty most of the way. When it dried, a bit of wet sanding with some 400-grit wet-or-dry sandpaper blended things nicely. The forward edge of each fuselage half needs to be slightly rounded so the cowl flaps will appear to close the area off.

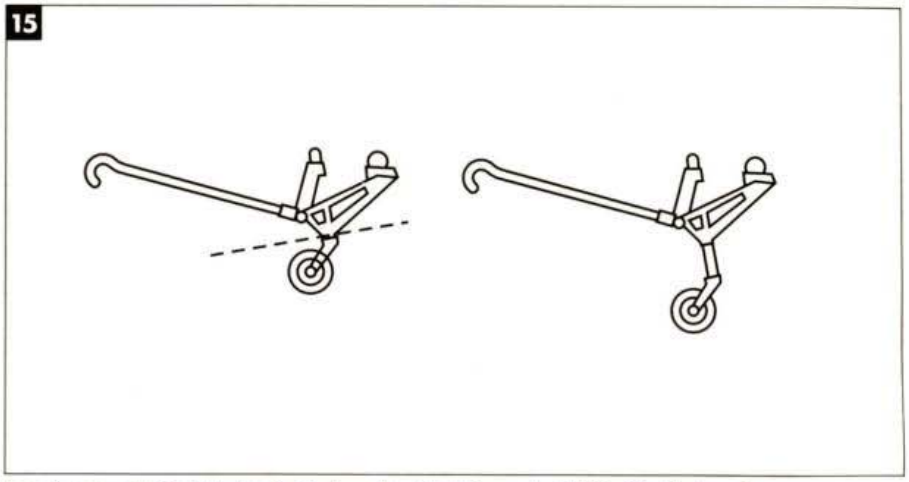
Cockpit

I used the Hasegawa kit cockpit as the basis for my F4U-4's front office. The seat needs to be modified, as the F4U-4's was just a pan, with the backrest formed by a piece of armor plate. I cut the seat back off with a razor saw, then made a new armor-plate back from .010" styrene sheet (¼" tall by 5/16" wide), **10**. I Added two small lengths of styrene strip to the upper edge to simulate the hinges that allow the armor plate to be moved for access to the aft fuselage.

I picked the instrument panel from the Italeri F4U-7 kit and sanded it smooth. After painting it flat black, I applied an F4U-4 instrument panel from ProModeler's U.S. Navy World War II Fighter instrument panel decal sheet (No. 88101100200). Hasegawa's console decals were fine straight from the box, so I applied them after painting the cockpit tub with Testor flat OD green (No. 1164). This color, which is in Testor ¼-ounce bottles, seems to look best for interiors in this scale, **11**. I assembled the fuselage with the cockpit components, except the seat back. After the interior is fixed in the fuselage the seat back can be added so that the lower edge rests on the rear of the seat pan and the hinge strips are below and on either side of the headrest.

Engine/cowl mount

Now, it's time to deal with a mount for the cowl and engine. I handled this by cutting a bulkhead of .020" styrene to the shape of the inside opening of the cowl aft end. A template is included, **12**. This is drilled with a No. 54 drill, on the vertical centerline and 11/32" from the top center. It's best to mount the bulkhead to the wing section and mark the centerline after gluing, then drill. The bulkhead is glued to the forward edge of the wing center section, so that a step is formed between the edge of the fuselage outer surface and the edge of the styrene sheet we just added, **13**. This step should be as wide as the cowl is thick; the sheet forms the support for both the engine mount and the cowl. Next, take Hasegawa kit part C-6, the aft cylinder bank for the kit engine, and drill a No. 54 hole in the center. Then, sand the back side of C-6 until it is reduced in thickness by the width of the flange. You want to get rid of the flange both in thickness and in diameter, **14**. When done, glue part C-6 to the .020" styrene on the wing, making sure that the holes are lined up. A short length of 3/64" styrene rod glued into the hole here serves as a mount for the Revell P-47M engine which we previously drilled a No. 54 hole through the rear cylinder bank.



Joseph separated the tailwheel yoke from the strut, then extended it with plastic rod.

Major assembly

At this point, we're ready to bring the major components together. The wing is assembled to the fuselage per the Hasegawa instructions, as are the horizontal tailplanes. I added a pair of small styrene tabs on the inside of the fuselage to help support and align the wing trailing edge. The kit canopy is used, or a vacuum-formed replacement may be substituted if you wish to pose it open. I used the kit canopy, masking it and attaching it prior to painting. Now is a good time to add the inner wing pylons. Figures 20, 21 and 22 show the basic airplane prior to adding the masked canopy and wing pylons, but otherwise ready for paint. The canopy is a press-fit to the forward fuselage. At this point, the overall color can be sprayed. I used Model Master glossy sea blue (FS 15042) for the overall color and Testor light blue (No. 1108) for the wingtips, fin tip, tailcone and prop dome. While the paint cures, we can deal with the detail parts.

Landing gear

The main landing gear is from the Hasegawa kit, with True Details wheels (No. 72025). No changes were required to the main gear. The Hasegawa tailwheel was also used, but need to be extended. I cut the wheel and yoke off, drilled the strut out, then used wire from a paper clip to make a new, longer strut. The new strut

You can get there from here. Joseph's conversion makes an accurate "dash four" Corsair in 1/72 scale. Paul Boyer photo

needs to be ⅛" longer than the original, **15**. I drilled a hole in the wheel yoke, and reinstalled the kit tailwheel. I painted the landing gear in Testor Metalizer non-buffing aluminum with the main wheel hubs the same blue as the airplane. The tires were painted with Gunze-Sangyo tire black (No. H77) from the aqueous line.

Paint and markings

After painting as mentioned above, I airbrushed two coats of Future acrylic floor polish, then applied the decals. The markings are for a VF-22 F4U-4, aboard the USS *Coral Sea* circa 1949. They were found on an old decal sheet I had in my stash, Microscale/Superscale No. 72-346. I'm not sure if they are completely correct, as the only reference I could find for the scheme was a color profile in Squadron/Signal's *F4U Corsair Fighting Colors*. A coat of Future over the decals sealed them and gave a uniform gloss to the airplanes.

Final assembly

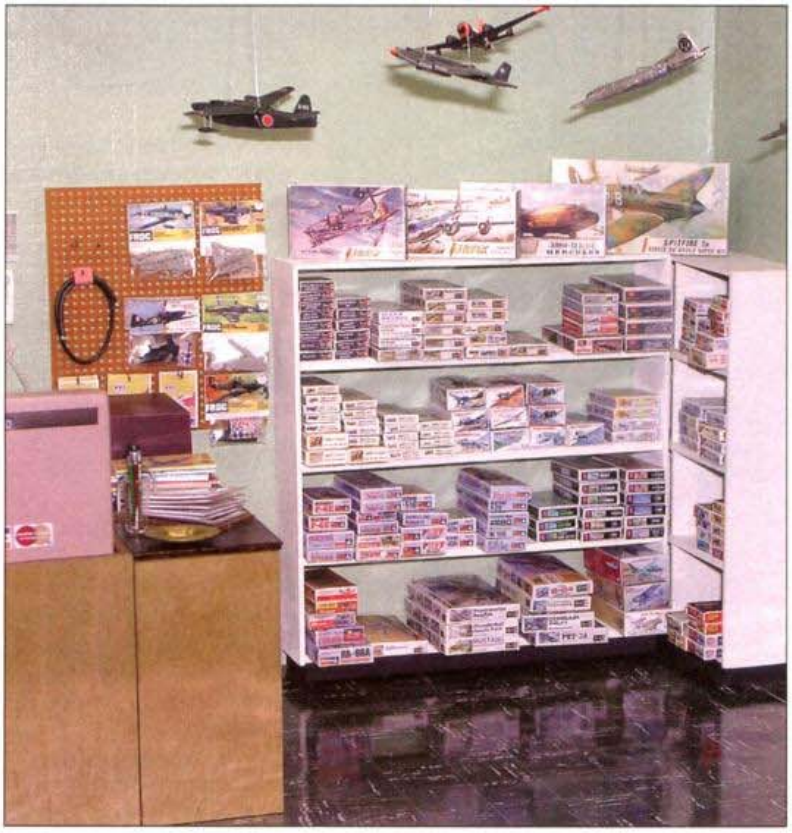
Now is the time to add the small parts (rocket stubs, landing gear, etc.), mount the engine and cowl and prop, and make a set of exhaust pipes from brass tube, rod, or stretched sprue. I used .030" styrene rod for this model. Two pipes go in the upper trough on each side, and one in the lower on each side, totaling six pipes. Add stores of your choice to the pylons. I hung a drop tank from the 1/72 Tamiya F4U-1D on the right wing pylon-the typical place for a tank when only one is carried on the wing stations. Use the forward antenna mast from the Hasegawa kit, and add the antenna wires using the material of your choice. I used threads taken from an old pair of my wife's nylons for this model, attached with more gap-filling super glue. That pretty much wraps it up; your Corsair is ready to take its place on your shelf! **FSM**

Meet Joseph Hegedus

Joseph lives in California, Md., with his wife, Lisa. He's been modeling seriously since 1987, mostly Naval aircraft from WWII to the present, but he does dabble in other areas from time to time for variety. When Joseph's not modeling, he's a flight test engineer for the Navy to pay the bills. He also spends time flying light airplanes.

Showcase

Dennis Nowicki's miniature memories



OK, so? What's the big deal about this vintage picture of the inside of some small hobby shop in 1970?

Well, squeeze into your bleach-spotted, bell-bottom jeans and comb your 'fro, groovsters. It's a model of a hobby shop in 1970! That's right, look again – closely.

Everything you see there is 1/12 the size of your fondest memories (if you can remember back that far – or if you were born after 1965). Brand new imported Tamiya, Frog, and Airfix kits are on the shelves, *Profiles* and the latest magazines are in the rack, and finished models grace the display case and dangle overhead. Ah, yes, those were the days, the days when Tustin, California's, Dennis Nowicki first got into modeling.

Above: The shop's counter includes a cash register (note the BankAmericard and Mastercharge logos, brand new innovations back in 1970), and the latest 1/100 scale Tamiya airplanes that were just unpacked.

Left: This is the way hobby shops used to look back in 1970, when even the biggest kits sold for no more than $8, and paint cost 15 cents. The "models" dangling on the fishing line are 1/700 scale models representing the 1/72 scale Hasegawa Emily and Neptune, Revell's Fw 200 Condor, and Airfix's B-29 and B-24.

Photos by Dennis Nowicki

Dennis started this project in 1993 while living in Japan. It was a simple scale model of a display case. He used 1/700 scale aircraft models from Hasegawa, Fujimi, Pit Road, Tamiya, Aoshima, and Skywave, 1/285 scale GHQ armor gaming pieces, and then he scratchbuilt the case. He put it away, but 10 years later, he decided to build another. Then he discovered 1/12 scale dollhouse furnishings, and then Adobe Photoshop for his computer to miniaturize magazine covers, kit box tops, and floor tiles.

Throw it all together and you get this wonderfully nostalgic still-life diorama. Aren't you tempted to peek inside one of the tiny kit boxes? "Hey! You open it, you buy it!" **FSM**

Above: Here's the full view of this magnificent 1/12 scale diorama – in its own display case.

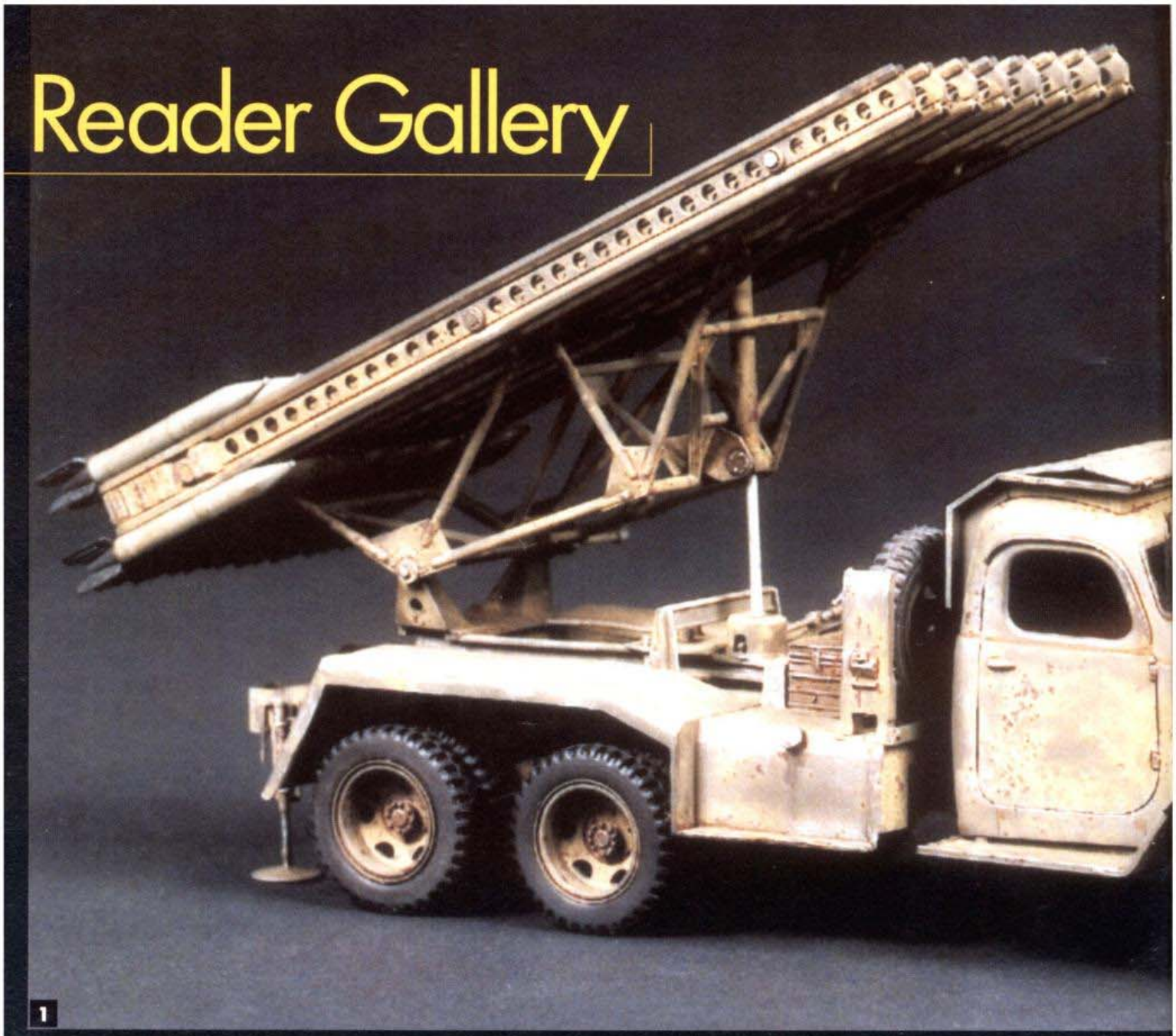
Right: Let's not forget armor and ships. Hmm ... there's Airfix, Aurora, Revell, UPC ... .

So, what reading material was found on the rack in 1970? Dennis checked his personal library and scanned and reduced covers to help stock the shelves.

Early Microscale decals, Humbrol paint in "tinlets," and *Scale Modeler* – what's that?

More carefully painted 1/700 scale models represent 1/72 scale models in the scratchbuilt display cases. Can you identify them?

Reader Gallery



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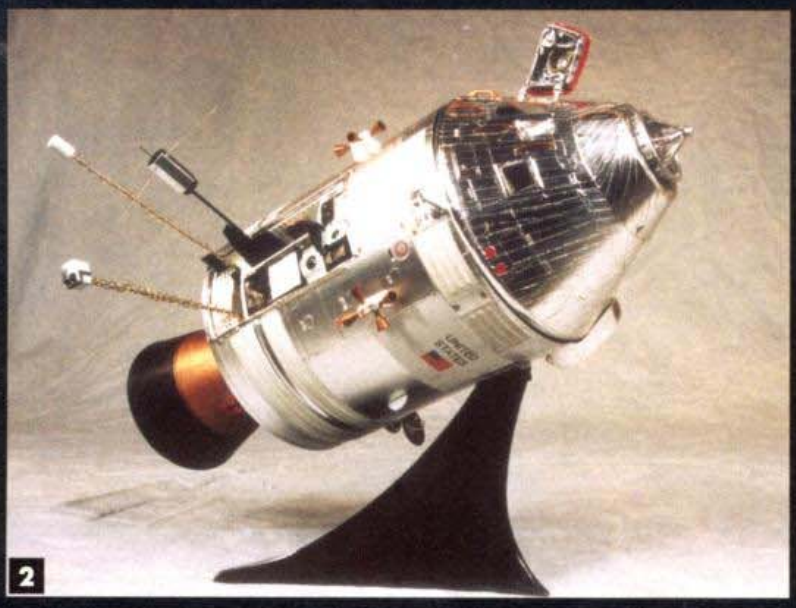

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1 Bruce Williams
Oshkosh, Wisconsin
German soldiers called this Russian BM-13 Katyusha "the Stalin organ" because of the sound the rockets made when launched. Bruce built this 1/35 scale Italeri kit straight from the box, then used salt as part of his weathering process.

2 Matthew Johnson
Grand Rapids, Michigan
Scientific studies and a spacewalk are scheduled for this 1/32 scale Revell Apollo 15 spacecraft. Matthew installed a RealSpace Models instrument-bay kit and an open access hatch, and skinned his model with two kinds of Bare-Metal Foil. He applied New Ware Apollo decals to the model and sealed them with Future floor polish.

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3 Pete Brown
Central Point, Oregon
This 1/48 scale U.S. Coast Guard HH-60J Jayhawk looks ready for pre-flight. Pete combined Italeri's SH-60B Seahawk kit with a Cobra Company conversion set and a Meteor productions "FLIR" pod, then finished with Hawkeye Models markings.

4 David Fasulo
Corinth, New York
The war face of this Teutonic Knight tells you that he means business. David painted his 120mm Soldiers' figure with artist's oils and enamels.

5 Mario Manuel P. Prado
Manila, Philippines
Mario started with an Academy 1/72 scale OV-10D Bronco and added a Czech Master detail kit along with scratchbuilt parts to build this award-winning model.

Reader Gallery

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6 Jay C. Mills
Berthoud, Colorado
Jay's 1/16 scale circus cage wagon is fashioned from brass, model aircraft plywood, styrene, and resin parts he cast himself. Even the horses are hand-crafted. The model represents a John Robinson Circus wagon from 1900.

7 Karl Logan
Auburn, New York
Karl, a professional musician, builds models between gigs. Here's his award-winning 1/24 scale Monogram Shelby GT 500 with a tricked-out engine bay.

8 Robert Magina
Plainville, Massachusetts
"Thoughts of Home" is a diorama depicting GIs relaxing as they journey through Italy in 1945. These 1/35 scale figures from Warriors and Verlinden rest

beside their Tamiya M8 howitzer motor carriage and a scratchbuilt barn.

9 Chuck Stewart
Muskegon, Michigan
"Tierra Paso Excavating" features a modified 1/35 scale Opel Blitz truck, a scratchbuilt trailer, and a VLS Army M1 bulldozer. Chuck "demilitarized" the truck and the dozer by applying Caterpillar yellow and Floquil green instead of the usual olive drab and Panzer gray.

10 John Rittel
Luzerne, Pennsylvania
Tamiya's 1/35 scale Tiger I tank looks so good out of the box that John put his effort into the kit's finish. He painted the model with acrylic colors and weathered it with washes and pastel chalks.

10

Show Gallery

The 29th MMSI,

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Figure modeling returns to the Windy City

Each October, modelers and figure painters from around the world converge in Chicago for the annual Military Miniature Society of Illinois (MMSI) Show, one of the premier figure and model events in the nation. The 2004 show featured more than 650 exhibits from 185 modelers from as far away as Mexico and Europe. This year marks the 30th anniversary of this event, and it will be held at the Hyatt Regency in Oak Brook, Ill., Oct. 14-16. Visit www.mmsichicago.com for more information. **FSM**

1 Douglas Lee
Toronto, Ontario, Canada
Douglas took a different approach to his 1/35 scale diorama entitled "Berlin, East Africa," by showing Russian troops coming face to face with the recently liberated tenants of the Berlin Zoo.

Chicago

Photos by Lawrence Hansen and Dave Raatz

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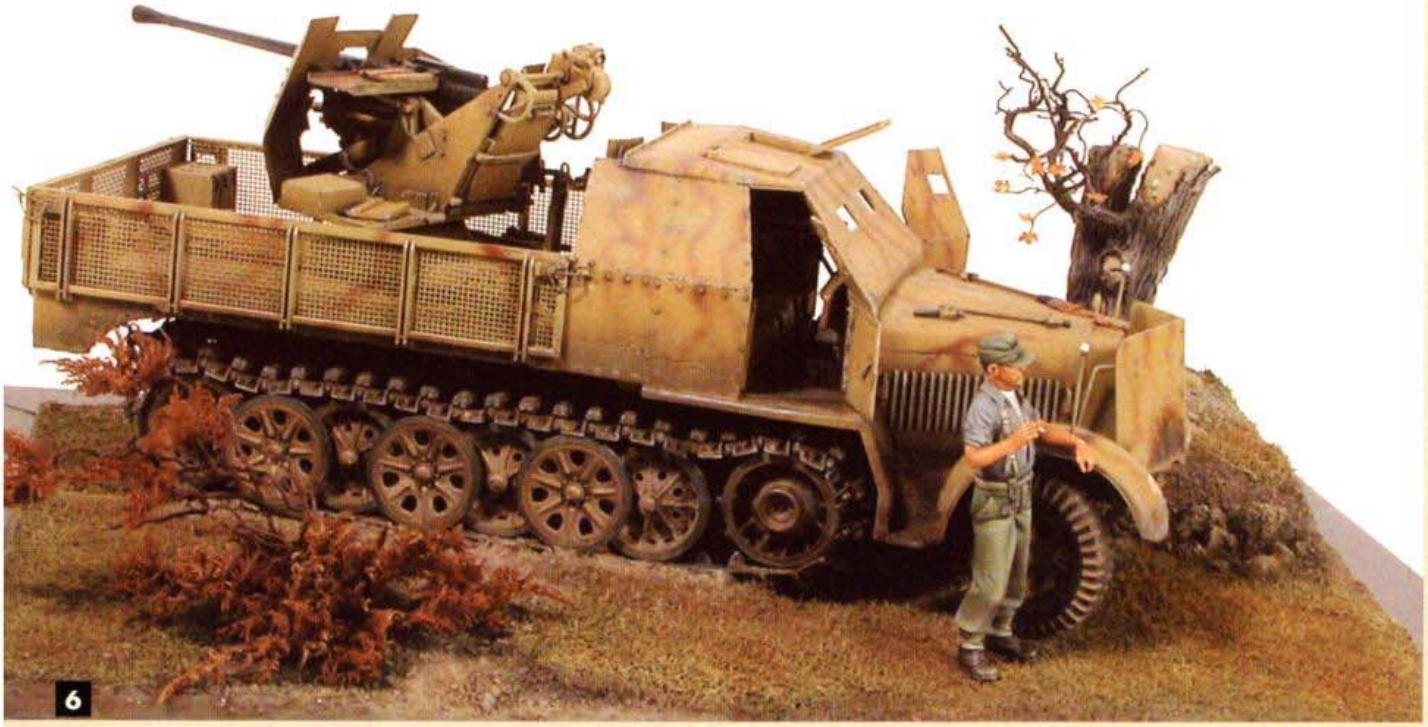
2 Jose Antonio Castrejon
Cuernavaca, Mexico
Jose traveled from Mexico with this beautiful 1/48 scale Hasegawa Macchi 202 "Folgore". He scratch-built details in the wheel wells, added seatbelts to the cockpit, and replaced the cannon barrels with tubing.

3 Anders Heintz
Bolivar, Missouri
Anders' 120mm German Gefreiter was photographed for the box art of the Stormtroopers kit. Anders painted the model with Vallejo acrylics.

4 Jon Harbuck
Birmingham, Alabama
"Conspicuous Gallantry" is the title of Jon's vignette from Shenandoah Miniatures, depicting Sgt. Conrad Smith rescuing his regimental commander, Capt. T.F. Rodenbaugh, during a charge on a Confederate position during the Civil War. Both men received the Medal of Honor, Sgt. Smith for the action portrayed in Jon's striking model.

5 Larry Peters
Milwaukee, Wisconsin
Larry combined components from three Dragon kits and added Tamiya parts to model this impressive Panzer IV with Panther II turret in 1/35 scale. The model is painted with oils, and Larry drew his inspiration for the model from the CMK 1/72 scale kit.



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6 Arturo Flores
Cuernavaca, Mexico
Arturo's 1/35 scale Tamiya SdKfz 7/2 represents a vehicle from the Grossdeutschland Division in Russia, 1944. Arturo added Model Kasten individual track links and photoetched brass details from Eduard.

7 Tim Flagstad
National City, California
Gustavus Adolphus, King of Sweden from 1611 to 1632, is the subject of Tim's 200mm bust from Historocity. Tim resculpted the eyes and nose and painted the figure with acrylics.

8 Joe Hudson
St. Charles, Missouri
Joe's 54mm Continental Marine is based on the Art Girona figure. Joe added barrels from Armand Bayardi, made the sacks from Aves epoxy putty, and painted the model with acrylics.

9 Nick Shearman
Keswick, Ontario, Canada
Nick added a Tank Workshop interior set, Aber phototetched brass detail set, RHPS individual track links, and a Jordi Rubio barrel to this amazing 1/35 scale M4A3 Sherman from Tamiya. He painted the model with Gunze Sangyo and Tamiya acrylics.

10 David Youngquist
Royal Oak, Michigan
A trip to the Montana battlefield on the Little Big Horn River was the inspiration for David's 70mm vignette titled, "Save the Last Bullet for Yourself." David converted the head of the standing trooper in this Fusilier kit.

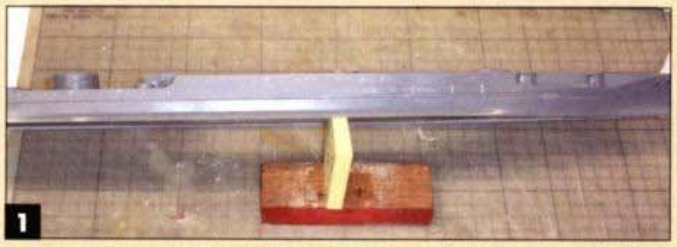
Part One of Two

The road to PENNSYLVANIA

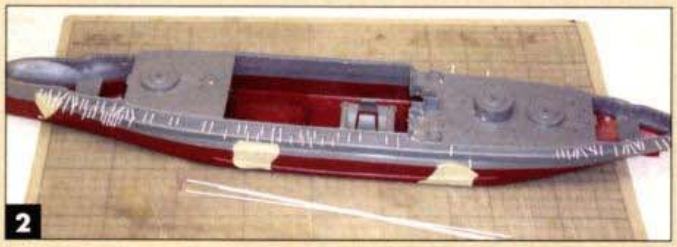
Converting Trumpeter's USS *Arizona*

Story and photos by Mike Ashey

Several years ago, a good friend gave me a set of plans of the battleship USS *Pennsylvania*, drawn for her 1944 refit. The *Pennsylvania* was the sister ship of the USS *Arizona*, and when Trumpeter issued a 1/350 scale model of the *Arizona* a few years ago, I started giving serious consideration to converting the *Arizona* kit into a late-war *Pennsylvania*. Steve Wiper of Classic Warships provided me with dozens of photos of the *Pennsylvania* he'd been collecting for one of his Warship Pictorial series of books. Close examination of the photos showed *Pennsylvania's* 1943 modernization and her late 1944 refit.



I removed the plastic armor plating with 400-grit sandpaper, and used finer grades to smooth the surface. With the tip of a No. 11 blade, I removed the small raised lines along the surface of the armor plating that represent the joints between the plates. The shape of the torpedo bulges on the forward edge needed to be more vertical. I drew a line, placed labeling tape along the edge of it and carefully cut into the plastic with a Bare-Metal Foil plastic scriber. I peeled away the excess plastic with a No.11 blade and wet sanded the surface smooth.



I drilled out the portholes using a .041" drill bit and filled the holes with .040" rod. The gangway locator holes were drilled out with a .052" drill bit and filled with .050" rod. I dipped each rod length into a puddle of super glue and then inserted it into the hole. Once the glue dried, I cut off the plastic and sanded the stubs smooth.

In early 1943, *Pennsylvania* was modernized and converted into a shore bombardment and antiaircraft platform for service in the island invasions of the Pacific war. Her superstructure appearance and secondary guns changed dramatically during 1943, so I decided to focus my attention on that period and convert the *Arizona* kit to a 1943 *Pennsylvania*. Since the shipyard drawings were from her last refit, I used both the 1944 drawings and the pictures from *Pennsylvania's* 1943 configuration.

I used the hull from the Trumpeter *Arizona* kit and cut out some of the molded-on deck details, such as the 14" gun barbettes and deck winches. Everything else was scratchbuilt or taken from other kits. I used Evergreen .025" V-grooved styrene to simulate the decking and various sizes of strene sheet to make the superstructure parts and upper decks. Various sizes of styrene strips and rod stock, made by both Evergreen and Plastruct were used, as well as K&S brass rod and tubing to make many of the parts.

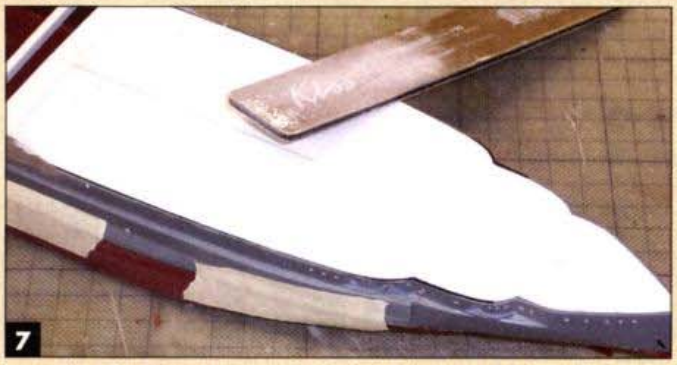
The majority of the common fittings, guns, directors, and other small detail parts came from a variety of kits from Tamiya, Trumpeter, and Classic Warships. Individual detail parts came from Tom's Modelworks, Gold Medal Models, L'Arsenal, and Yankee Modelworks. All of the paints were Testor's enamels and Testor's Dullcote.

It took me almost a year to complete this conversion project, and I had to set the project aside from time to time to plan certain aspects of the construction. When the U.S. Navy sent the *Pennsylvania* to the shipyard for her modernization, the naval engineers who undertook the redesign of her superstructure must have been trying to save weight to compensate for all the additional secondary guns added to the ship. It's the only explanation I can think of as to why the superstructure has so many odd shapes and angles. They created some interesting scratchbuilding and construction problems, but once I figured out how to break parts into basic geometric shapes, it made my efforts much easier.

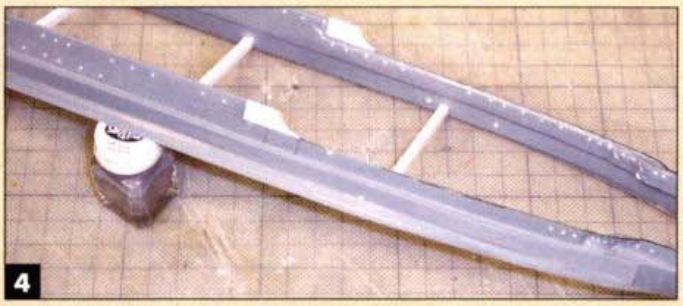
The *Pennsylvania* model looks quite different from my *Arizona*. When the two models are placed side by side, they offer a stark contrast in naval thinking and technology: the Pearl Harbor *Arizona* with her open 5"/25 slow-shooting antiaircraft guns, no radar, and her antiquated superstructure guns, and the *Pennsylvania*, bristling with modern weapons and radars for fire control and aircraft detection. I often wonder what the *Arizona* might have looked like in 1943 had she survived Dec. 7th. This conversion project brought my scratchbuilding skills to another level, but I think I will stick to building kits out of the box for a little while. **FSM**

Before removing the molded-on decks, I reinforced the upper hull by gluing .188" x .188" plastic into the inside area. These ensure that the upper hull retains its shape once the decks are removed. The thickness of the hull sides toward the bow was thin after I removed the armor hull plating, so I laminated several lengths of .020" x .188" strips of plastic to the inside areas for additional strength.

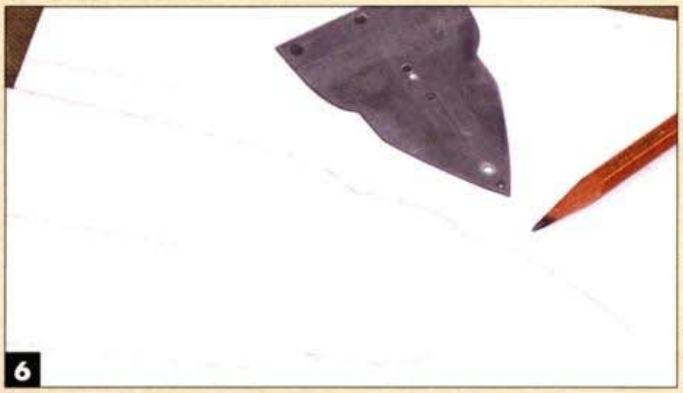
I removed the inaccurate shaft protrusions and prepared the hull area for new protrusions and V-struts. I peeled the excess plastic off and sanded and smoothed the plastic. I also sanded off the molded-on bilge keels, and used .040" x .125" styrene strips to fill in the indentations in the hull.



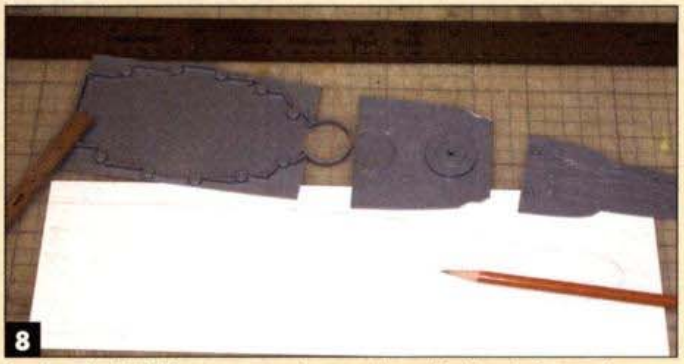
I laminated the thinner V-grooved plastic to heavier stock for the decks. Once the laminated sheet was dry, I form-fitted the deck into place. I used a sanding stick to remove any excess plastic along the edges of the deck to ensure a tight fit. This is a slow process and if you don't take your time, you'll be measuring, cutting, gluing, and sanding more than once! Sand a little, position the deck, mark the areas that need more sanding, and sand a little more. Repeat the process as you work your way around the deck's perimeter.



I located how far aft the curved section of the hull was moved after the *Pennsylvania's* 1943 refit. I then cut and shaped a length of .030" thick plastic, cut a square notch into the hull to remove the molded-on curve, and then superglued the new section into place. I shaped the part before gluing it into place by running the plastic against sandpaper wrapped around a 1" wooden dowel to shape the curve.

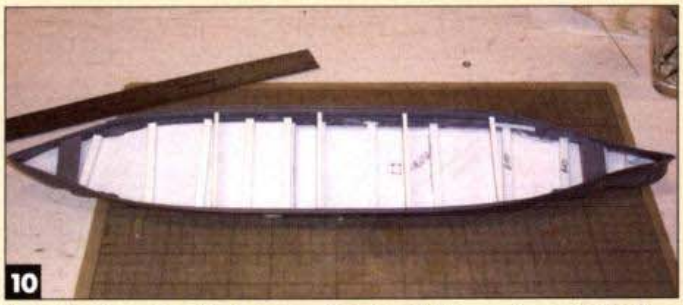


Tracing a line for the perimeter of the inside of the hull provided the thickness of the hull's lip where the new deck would sit. The thickness was a bit more than .060". I used the separate aft section of the kit's deck to trace that portion of the lip and then I hand drew the remaining lengths. Since the sheet styrene for the deck is only .020" thick, it needed to be laminated to add strength and prevent the deck from flexing.



I took a slightly different approach to set the outline for the forward upper-deck. I cut out the molded-on deck section using the same scribing tool. Using the cut-out section in combination with the two separate deck sections, I created an outline for the upper deck. The curved hull areas were measured, cut, and form-fit once the rest of the deck was set into place. I followed the same process for the forward deck by laminating a .040" sheet to the underside.

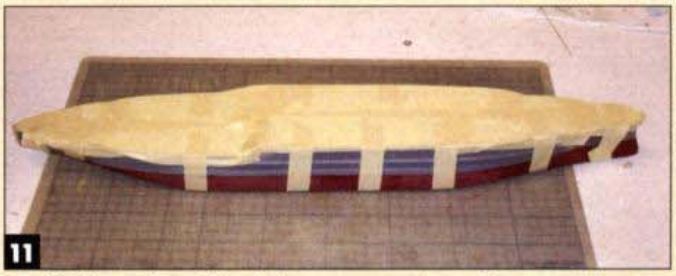
Satisfied with the fit of the decks, I glued the lower deck in place, and protected the surface with masking tape before gluing the upper deck. I positioned the deck in place with strips of masking tape, and glued the deck to the hull. After the glue dried, I removed the masking tape strips. I then form-fitted a .030" x .250" length of plastic into the quarterdeck, the vertical step between the upper and lower main deck.



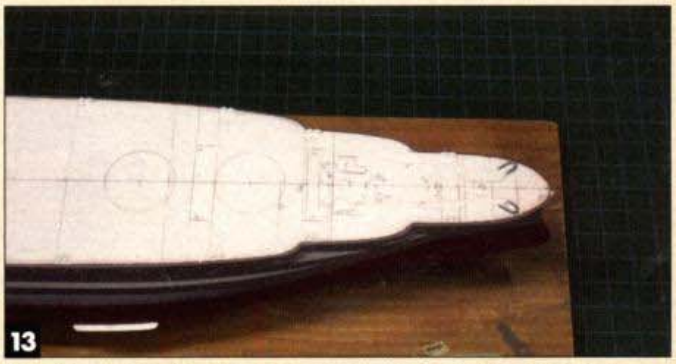
To further strengthen the deck, I applied a bead of super glue to the inside perimeter area. I glued strips of ¼" square styrene to the underside of the deck so they contacted both the inner sides of the hull and the underside of the deck surface. These additional strips made the deck strong and prevented flexing.

I added new bilge keels to the aft and forward locations on the hull using .030" x .10" strips. I built the shaft protrusions from .125" rod, and I drilled out the shaft openings with a .081" drill bit. The V-struts were made from .125" tubing, drilled out to accept .072" rod. The struts were made from .030" x .125" strips. The assembled V-struts were form-fit into place on the hull using .072" brass rod for the shafts. The brass rod helped position the V-struts in their correct locations and align them with the hull shaft protrusions. I modified the rudder and its hull location so that it appeared more accurate and fit tightly into place. I also covered the aft anchor holes with .015" thick oblong shaped pieces, as these anchor holes were sealed during the ship's refit.

When I finished the forward deck, I laminated V-grooved sheet to plastic stock to form the .30" high superstructure levels. The main superstructure will be made up of several parts all cut from this same laminated working stock. I rough-cut each section and squared the edges using my 10" variable-speed sanding disk, making sure the sections were perfectly square so the assembled parts would be square and straight both vertically and horizontally. To get the correct angles on superstructure parts, I copied and white glued the drawings to .030" sheet plastic. I shaped the template and then used it as a guide to set the necessary angles with the miter guide. Once the parts were done the edges, I sanded them using stationary pieces of wet sandpaper.



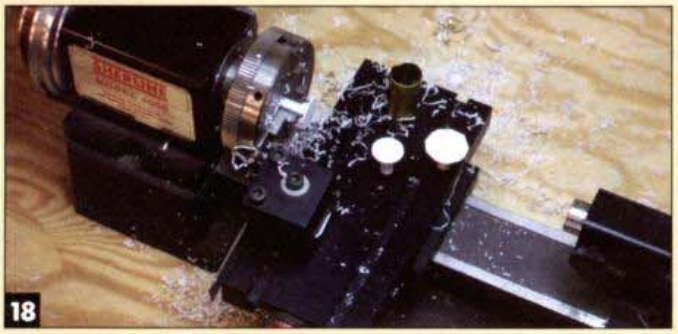
I masked the surface of the deck to prevent any superglue seepage from marring the main deck.



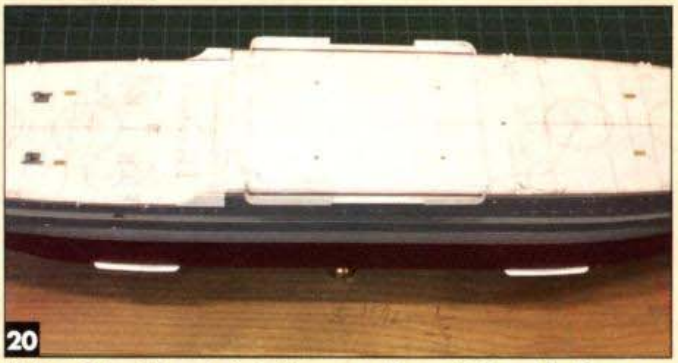
After drawing a center reference point down the centerline of the deck, I marked the locations of the 14" gun turret barbettes and deck fittings. Deck bitts were fashioned from .020" x .10" strips and .061" rod. A copied drawing for the chain plating was cut and white glued to .020" sheet stock. I placed double-thick strips of masking tape on the deck to act as locators for the chain plating and then I glued the plating to the deck. I cut the chain deck guards from the *Arizona* kit's deck. The ship had four anchors originally, but lost two during her overhaul and conversion. I made sure the chain plating lined up with the two forward anchor openings on the hull.

I assembled the main superstructure in six separate sections, and I wet-sanded the parts to remove any minute seam bumps between the sections. I glued the V-grooved sheet with thick gel super glue, making sure it stayed aligned. I cut the V-grooved sheeting using the edge of the superstructure as a guide and wet-sanded the edges until flush. I drew the deck details and upper superstructure locations onto the top surface, and drilled five location holes into the main superstructure. I positioned the part onto the deck, marked the hole locations, and drilled corresponding holes in the deck. Plastic rod will hold the part in place and prevent it from shifting once glued to the main deck.

I turned my attention to making curved plastic parts for the splinter shields. I used 3/8", 15/32", 19/32" and 21/32" diameters of K&S brass tubing, and cut lengths of .020" x .156" and .020" x .188" plastic strip to fit around the diameters of each brass tube. Each plastic length was wrapped around the brass tubing and secured in place with masking tape. I applied 10 strips to each rod and completely covered them with several layers of masking tape. I brought a pot of water to a boil, turned off the heat and let each rod sit in the water for about 20 seconds. If you immerse them any longer than that, the edges of the plastic will curl, ruining the shape.

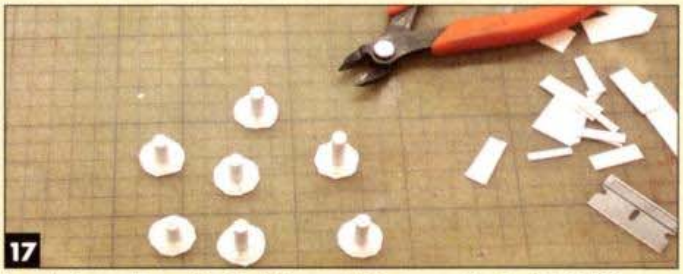


I placed each part in my Sherline lathe and slowly peeled away the excess plastic with a parting tool. I checked my work frequently using a short length of 21/32" brass tubing so each part had the correct diameter. I measured the splinter shields and glued them into place.

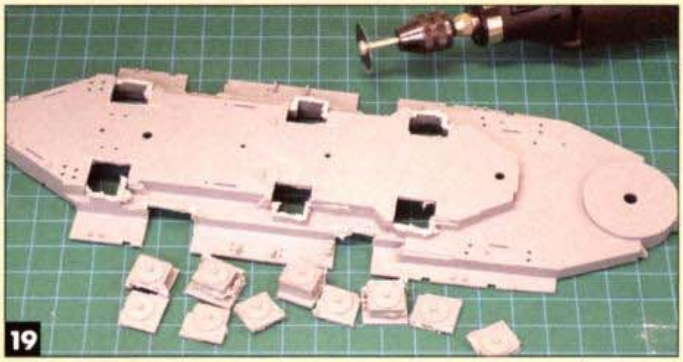


I built and glued the main deck 20mm gun splinter shields and decking to the hull prior to attaching the main superstructure. I continued to add details such as deck winches, deck vent locations, and hatches. I made deck hatches with .020" x .10" strips with the photoetched doors superglued into place.

I added the 14" gun barbettes and turned my attention to building and detailing the remaining superstructure parts. I airbrushed primer along the seams and edges, filled any voids with white glue, and wiped away the excess with a damp cotton swab. I used .080" x .10" strips for the 20mm ready storage lockers. The tops of the lockers are photoetched hatches. Parts for the next level of the superstructure were cut, assembled, detailed, and attached to the deck. Now my scratchbuilding project is starting to look like a battleship. Next month, I'll add guns, small details, and paint!



I needed round bases for the 20mm and 40mm gun tubs that dotted the ship. I drew 5/8" circles onto .030" thick sheet stock using a drafting template, glued .080" rod onto the centers, and rough-cut the parts. The rods were not exactly centered, so rough-cutting the parts compensated for any offsets that might occur. Using this method, you can make just about any size disk you would ever need for scratchbuilding.



Since I decided to use the twin 5"/38 guns from a Tamiya kit, I cut the bases from the kit's superstructure. I removed the unwanted plastic with a pair of plastic snips and sanded the parts to remove the excess plastic from under the disks.

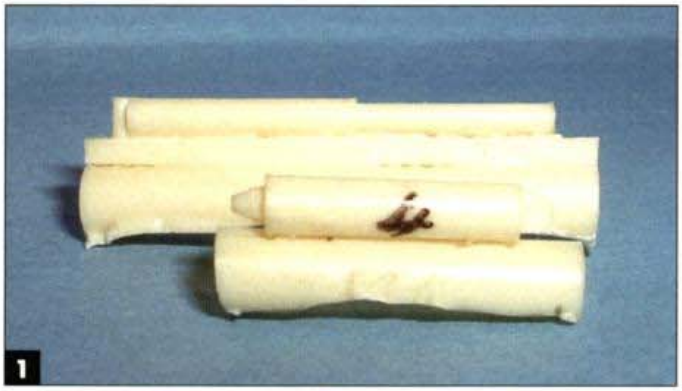
The main superstructure deck has been glued down. Masking tape was carefully applied to protect the deck from excess glue. Details such as portholes, hatches fire hoses and electrical boxes were also applied to the sides of the superstructure prior to attaching it to the deck. Excess glue was removed with a damp cotton swab.

Israeli Hawk

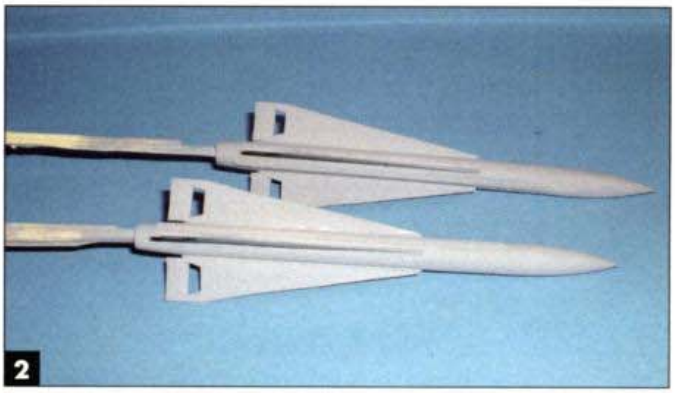
This all-resin kit presents unique challenges

By Michael Conforti

The Hawk surface-to-air missile was developed by Raytheon in the 1950s for the U.S. military. Its first combat use was by the Israel Defense Forces (IDF) during the 1967 war. The Hawk is still the primary surface-to-air missile in use with many of the world's armies.

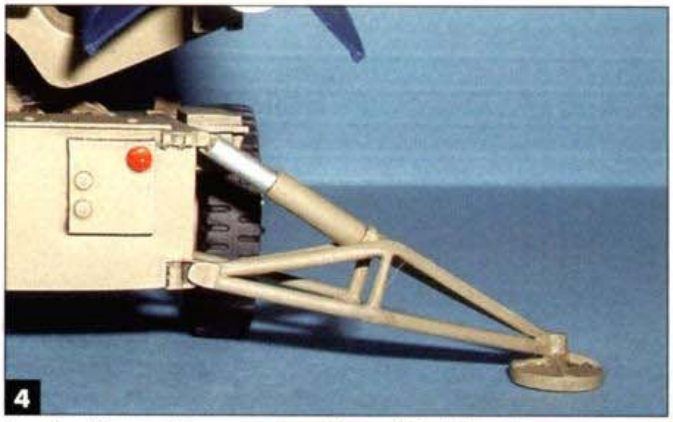


To keep track of the cast-resin parts during assembly, Michael marked them with their part numbers.



Mounting the missiles on rods made them easier to handle during painting.

A few bits from Michael's parts box added detail to the kit-provided cast-resin wheels.



Lengths of brass tubing strengthened the model's delicate legs.

I first saw Nimix's 1/35 scale cast-resin Hawk missile launcher (kit No. 3536) in the Workbench Review section of the September, 2001 FSM. When my own copy of the kit arrived I knew I wanted to build it and add Israeli markings. The launcher would be my second all-resin kit, and I soon found that references were scarce. I decided not to get too concerned about "total accuracy" and instead decided to simply concentrate on building a good overall likeness.

I built the model in three major subassemblies: the missiles, the launcher base, and the launcher assembly. The first step was to remove the parts from their pour stubs. Since some of the parts were numbered on their stubs, I went through the kit and marked the part numbers directly onto each part with a permanent marker, **1**. This way I could clean up all the pieces in one go without worrying about getting parts mixed up.

Missiles

The missiles turned out to be the easiest part of the kit. Only the nosecones have alignment points; the exhausts need to be carefully lined up to minimize filling and sanding. After gluing the parts together, I filled the gaps with small amounts of super glue and sanded the joints smooth.

Each missile has four fins that must be carefully aligned. I tacked each fin in place with two small spots of super glue. As I added them, I made sure each new fin was at right angles to the others and parallel to the missile tube. When I added all four fins and was satisfied with their alignment, I applied small amounts of thin super glue to one end of each fin seam and allowed capillary action to draw the glue down between the parts. When the glue was dry, I sanded the joints with small squares of 400-grit wet-or-dry sandpaper. I did all of the sanding with copious amounts of water to reduce resin dust.

To make them easier to paint, I mounted the missiles on rods, securing them with a spot of super glue. When I was done painting, I popped off the rods and touched up the bare areas with a paintbrush, **2**.

Launcher base

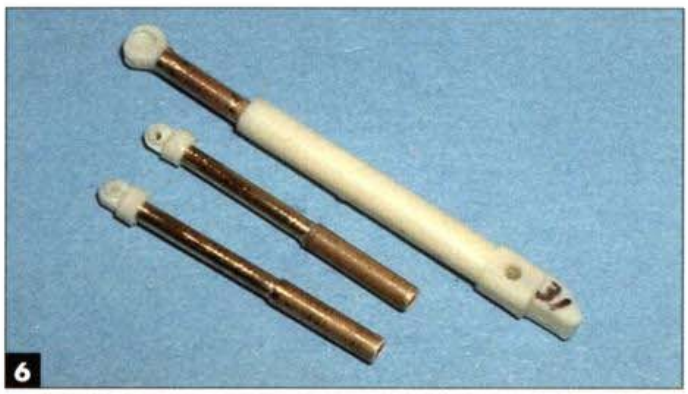
The main body of the launcher base had a large pour stub. I removed most of it using a grinding bit chucked in my motor tool. The rest was sanded away in a water-filled casserole dish that had a sheet of sandpaper mounted in the bottom. I replaced the kit's resin wheel axles with brass rod.

The wheels had most of their lug nuts incompletely cast. I sliced them all off and replaced them with bolts I shaved off a Tamiya Merkava road wheel. The wheel centers didn't include hubs, so I added some from my spares box, **3**.

The launcher-base support armature is cast with a thin resin wafer between the bars. Removing this without damaging the tubular cross section was a challenge. I drilled a large hole in the center of the wafer, then cut a line to each corner, creating pieces that could be cut out without stressing the armature. Careful sanding with a variety of small files and sanding sticks took care of things from there.

I inserted a small length of brass tubing into the end of each of the hydraulic arms where they meet the armature, **4**. This provided added strength, as the armatures support the weight of the entire model. The kit's side support arms are

Michael filed a groove into the top of each launcher rail to make the missiles sit more realistically.



Michael added brass tubing to the launcher's hydraulic arms to change the angle of the launcher platform.

plastic rods; I replaced them with brass rod for strength. The armature base plates were cast as simple discs. I detailed them with triangular strengthening braces I cut from styrene sheet.

Launcher assembly

The launcher assembly turned out to be the most challenging section of the kit. The kit instructions weren't helpful, but reference photos helped me figure out how to proceed with assembly. The launch rails have flat tops. I thought this might be a problem when I mounted the missiles, so I filed a groove along the top of each one, **5**. This allows the missiles to sit in place without mounting pins.

I detailed the back faces of the rear launch rails by drilling a small hole in each of the four corners to simulate recessed screw heads. The cylindrical cover on the front end (below the center rail) received the same treatment. There's a small tank below the center-rear launch rail; I detailed it with a valve from my scrap box and a length of solder.

Out of the box, the launcher sits with the missiles almost parallel to the ground. I wanted mine to be angled upward. To do this, I had to lengthen the central hydraulic arm that raises and lowers the launcher. I cut out the central portion of the arm and replaced it with brass tubing.

I elongated the front hydraulic arms by replacing them with telescoping brass tubing, **6**. This turned out to be a mistake, which I only discovered after completing the model. On the full-size launcher, these arms aren't hydraulic, they simply support the launcher when in its neutral position, with the missiles parallel to the ground. When the launcher is raised, they simply disengage from the bottom. Since I had already completed the model when I discovered the error, I left them in place. They look the part even if they're not accurate.

The assembly attaches to the base with a small resin pin. I replaced this with a longer, sturdier length of aluminium rod, which also allows the launcher to swivel on its base.

Finishing

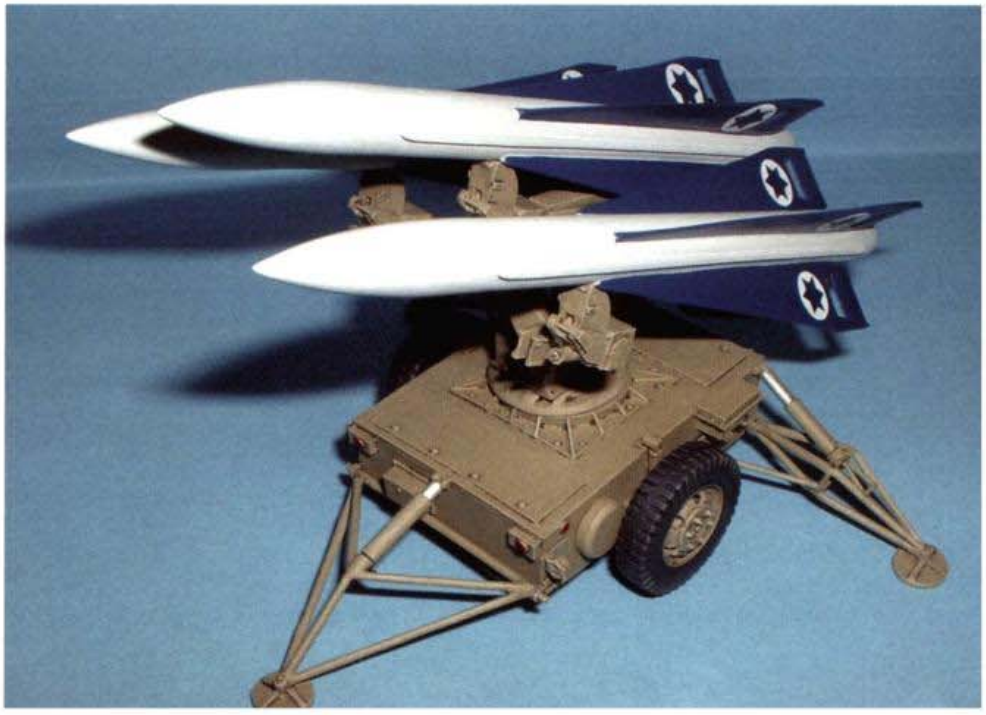
I washed all the subassemblies with warm soapy water and primed them with Tamiya's spray-can gray surface primer. This revealed a few surface imperfections that had to be filled. I airbrushed the launcher and base with Testor Model Master Acryl Israeli armor sand gray (No. 4814) lightened slightly with white. A dark artist's oil wash and light dry-brushing helped add definition. I brush-painted the tires charcoal black and dry-brushed them with gray.

Reference photos showed the missiles painted in a variety of schemes, both with and without markings. From the beginning, I wanted to model the missiles with Star of David insignias. I painted the missiles Model Master light gray (No. 4765) with Blue Angel blue (No. 4687) wings. The kit doesn't provide decals, so I used two Microscale decal sheets (Nos. 72-220 and 72-105) to get the 24 Star of David emblems I needed. All the emblems aren't the same size, but it is not that noticeable on the finished model. I applied the decals over brushed-on Future floor polish, and when they were dry, I sealed them with a second coat of Future.

The completed model looks great on my display shelf. The missile colors and emblems really stand out among the other IDF vehicles in my collection. **FSM**

SOURCES

Nimix Apartado De Correos 45.117, 28080 Madrid, Spain



Michael found Star of David decals on an Internet auction site. The missiles got their high-gloss finish from a final coat of Future floor polish.

Norman L. Karis Photo

Revell's U.S. Army Corporal

The Corporal missile was one of the first nuclear-tipped, inertially-guided missiles to become fully combat operational with U.S. forces stationed in Europe. The short-range liquid-fueled missile could be moved to a launch site on a transporter, so hardened launch facilities were not required.

The Corporal was only in service for a few Cold War years in the 1950s and was eventually rendered obsolete by developing technology.

Revell's 1/40 scale Corporal missile, kit No. H-543, was impressive for its size and detail. As was common for 1950s-era kits, it had many moving parts. The kit included three major assemblies: a 14"-long transporter with operating cab doors and geared assembly that elevated the missile, the foot-long Corporal, and the separate launcher, complete with rotating radar and four crew figures with individual bases.

Revell's Corporal would make the ideal focal point of a Cold War collection or battlefield diorama. This was a state-of-the-art kit for 1959, and it measures up well even based on today's standards.

Not only is it a well-made kit, it is also a collector's item. *The Collector's Guide for Scale Model Plastic Kits* by John W. Burns values Corporal missile kits, if found in good condition, upward of $100. **FSM**

Corporal quick facts

Range - 75 miles
Altitude - 20-30 miles
Velocity - Mach 3
Dimensions - 46' long, 30" depth, 4.4' span
Weight - 12,000 lbs. loaded
Served - until 1966

Information from the Smithsonian National Air and Space Museum website, www.nasm.si.edu

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FineScale Modeler MAGAZINE

Reader Tips

Solutions and innovations
Conducted by Matthew Usher

Finding small parts

Everyone who has dropped a small part onto the floor knows how hard finding it can be. When a tiny detail part (such as a grab handle or a photoetched-metal part) disappears into the carpet under my workbench, I reach for a small battery-powered vacuum cleaner I bought in an electronics store. I vacuum the area where the part disappeared, and usually the missing piece turns up in its dust container. When the part is very small, I dump the dust container into a small glass of clean water. The dust dissolves immediately, and the part drops to the bottom of the glass where I can retrieve it with a pair of tweezers and get back to installing it on my model.

– Puay Teck Lau
Singapore

Brake fluid paint remover

Standard automotive brake fluid from the auto-parts store makes a great paint remover when your airbrushed finish doesn't go as planned. Simply pour the fluid into a plastic container and add the parts. The painted finish will soften and wrinkle. Usually the paint will fall off the model on its own, but sometimes stubborn areas will require a little scrubbing with an old toothbrush before they'll come totally clean. Brake fluid can be used more than once to remove paint, and straining it through a paper coffee-maker filter before returning it to its storage container will remove the large chunks of paint and make the fluid last longer. Two words of caution: Always wear skin and eye protection when stripping parts with brake fluid, and avoid applying it to clear parts, which the fluid can discolor and turn white.

– Gary Nash
Australia

Liquid-cement applicator

I made my own "poor-man's" capillary-action liquid-glue applicator. I started with a fine-point precision glue tip that came attached to a bottle of super glue. These are available separately, too. Most hobby shops stock them right near the glue.

To make a handle for the applicator, I used a piece of ⅛" wooden dowel. I slipped the glue tip over the dowel and pressed it on until it fit snugly. To fill the applicator with glue, I drilled a small hole thought the base of the glue tip, close to the end of the dowel. It's done and ready to use!

When I dip the glue tip in a bottle of liquid cement, capillary action fills the most-pointed section of the tip with glue. When I run the tip along the seam I want to glue, the glue flows out. When the tip clogs or wears out, I simply remove it and slip on a new one.

– Doug Scothorne
Salt Lake City

"Brush" away dust

When I work on a model that requires a lot of sanding, areas like panels lines and molded-in grilles inevitably fill with sanding dust. When they do, I use my airbrush and compressor (without paint) to blow the dust off the model. I always wear a dust mask and eye protection when I do this.

– Ben Pitonyak
West Chester, Ohio

Back to the Future

Most modelers know about the wonders of using Future floor polish to provide a gloss coat for decals or to protect clear parts like canopies and windshields. Believe it or not, I've discovered yet another use for this workbench mainstay. If you're modeling an aircraft and need to add a formation or identification light, first paint the light with bright silver paint. When it's dry, mix a little food coloring (available at any supermarket) of the appropriate color with Future. When the mixture is the correct shade, apply it to the light. I'm sure this technique will work equally well to simulate headlights and taillights on cars and armor models.

– Jack M. Reisner
Forest Hills, N.Y.

Stuck paint bottle lid?

I've discovered a simple method to help open the stuck cap of a model-paint bottle. I turn the bottle upside-down in the middle of a shallow dish or plate. Next, I pour hot tap water into the dish until the water level almost submerges the cap. I let

the paint bottle to sit for at least five minutes, then give it a try. Usually the bottle will open without trouble; the hot water makes the cap expand slightly, loosening it in the process. This method is particularly helpful with Tamiya paint bottles, which have large plastic caps.

– Puay Teck Lau
Singapore

Easy as cake

Does anyone else airbrush or paint in a dusty garage or basement? I do, and it drives me crazy when dust and dirt end up in my freshly applied finish. Recently I started using a molded-plastic cake container from the grocery store to protect my models as they dry. I paint the model, place it on the base, and snap the lid in place It's a perfect dust cover, and a perfect reason to pick up a cake the next time you do the shopping!

– Jay Boutin
Calgary, Alberta, Canada

Brace yourself

The next time you visit your dentist, ask for a package of the little orthodontic rubber bands that attach to braces. A single package contains a lot of bands, and they're the perfect size for holding small parts together while glue dries.

– Wayne Dippold
Alden, N.Y.

Pet-store display cases

Are model-display cases too expensive for your budget? Go to any well-stocked pet store and check out their selection of aquariums and reptile cases. These are almost always constructed from glass, and are available in a wide variety of sizes and shapes. To display your model, just turn the case over and use a wood or plastic base as the "floor." Most standard aquariums cost between $10-$30, depending on how big they are.

– William Barber Sr.
Lumberton, N.J.

Lego algebra and resin casting

I was really impressed with Matthew Usher's article on resin casting in the May 2005 issue. I've used Legos for making molds for many years, and one trick I've learned is how to figure out the volume of RTV that will be needed given the dimensions of the Lego form. After some experimentation, I determined that a standard-height Lego block with one pip on top has a volume of 0.6144 ml. Using this value, I can estimate the volume of RTV to use.

For example, on page 38 of the article, the one-piece mold is four rows high with an interior space that's 6x6 blocks. This makes a volume of 6x6x4x0.61444ml, or approximately 88.5 ml of RTV.

You can also estimate how much volume the master occupies with the same method. Judging from the picture, the mold master (the engine nacelle) occupies about 4x3x2 blocks, or 14.75ml. For the one-piece mold I'd mix up 74ml of RTV. This amount is probably too much (since I can't really estimate the master well from just the photo in the article) but with some practice you can get the correct volume of RTV needed for a mold down pat.

– Mark Wilson
Alexandria, Va.

Golf-bag motor tool

Sometimes when the lines blur between hobbies you end up finding a crossover technique or tool that works brilliantly. Modelers are always trying to find a tool that will to drill or grind styrene slowly. Many high-power motor tools turn too fast and melt the plastic and aren't useful.

I found a Dremel motor tool that seems to be the best of both worlds. It's marketed as a motorized golf-club cleaning tool, and is called the "Dremel Alkaline MiniMite 760." It looks like a standard MiniMite, but it's outer casing is translucent green, and instead of being rechargeable, it operates on four regular AA batteries. The tool has a standard ⅛" Dremel chuck (so it will accept all Dremel bits), and includes a nylon storage pouch and a couple of wire-wheel cleaning bits. Best of all, it turns slow enough to drill or grind styrene without melting the styrene.

I purchased mine at a local home-improvement center. When I got it home, I immediately put some batteries in, and started grinding on an aircraft cowling I had been thinning by hand. I had the job done in just a couple of minutes. Always wear eye protection when using a motor tool.

– Warren Dickinson
Elkton, Ky.

Art erasers

The kneaded-rubber erasers that are available at art supply stores are great for a number of modeling related chores. The clay-type erasers can be used to remove pencil marks and stray pastel powder from your models. The eraser can be kneaded into almost any shape to get at hard-to-reach areas on your model.

– William S. Bally
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Academy's big-scale Viper

Following closely on the heels of Tamiya's $167 1/32 scale Viper, Academy's kit is aimed at modelers on a budget. This kit is an interesting alternative. Academy provides the choice of Pratt & Whitney F101 or General Electric F110 engine exhaust nozzles as well as the accompanying standard and "wide-mouth" intakes. Unlike Tamiya, Academy has not included the rest of the engine. If you are not interested in loads of internal detail, this won't be a concern.

The overall external detail is fine, but not quite as sharp as Tamiya's. Some of the dark gray plastic parts have a slightly pebbly surface. The comprehensive choice of weapons includes: JDAM and GBU-12 Paveway II bombs, along with AGM-88 HARM, AIM-120 AMRAAM, and AIM-9L and AIM-9X Sidewinders. To guide your model to the target, an AN/AAQ-13 navigation pod and an AN/AAQ-14 targeting pod are also included alongside a big ALQ-184 ECM pod and AN/ASQ-213 HARM guidance pod. A sitting pilot, standing pilot, and ground-crew figures are provided, too.

Markings for five different squadrons and stencils for the aircraft and weapons are beautifully printed on the decal sheets. The instructions comprise 26 pages of clearly illustrated assembly, painting, and decaling diagrams.

The completed cockpit looks realistic, except for the thin, flat, molded-in harness on the seat. Installing the cockpit and the complete intake trunk into the fuselage went smoothly. The landing gear is well-detailed and went in without a problem. The gear bays and the M61 cannon and bay have nice detail, too. No vinyl tires are in this kit; the standard plastic wheels and tires look good, but you may want to file flat spots on them to make them sit properly.

Installing the radar mount was tricky. The gimbles do not have enough clearance between them (part Nos. E33 and E34) to insert the antenna mount (E24) without sanding down the bushings. You can choose from two head-up displays (HUDs) units. The instrument panel coaming is oddly shaped.

F-16 canopies are either clear or tinted, and Academy gives you both – a nice

F-16CG/CJ

Kit: No. 12101
Scale: 1/32
Manufacturer: Academy, from Model Rectifier Corp., 732-225-2100, www.modelrectifier.com
Price: $109
Comments: Injection-molded, 441 parts, decals
Pros: Well-molded, choice of intakes and engine exhausts, good ordnance, clear and tinted canopies, comprehensive decal sheet
Cons: Some minor fit problems, both intakes too deep, shape of instrument panel coaming inaccurate, pebbly surface, raised detail on fuel tanks oversized, no provision for holding canopy open

touch. The canopy fits fine in the closed position, but it has no provision to be posed opened.

There's a bit too much slop in the fit of the pylons to the wings. You'll have to shave the rear edge of the cannon cover (D68) if you want to close it.

The external ordnance is well-molded and the parts fit together fine. I didn't like the prominent raised detail on the drop tanks, though.

I painted the model with Testor Model Master enamels, then overcoated with Future floor polish in preparation for decaling. The decals were super.

The finished model scales well to published dimensions. I used Squadron/Signal's *Walk Around F-16* by Lou Drendel for my main reference.

I like Academy's F-16 enough to consider filling out my 1/32 scale collection with more, right alongside the Tamiya version. While it doesn't have the fit and finish of Tamiya's kit, this one has the advantages of intake/exhaust options and a lower price tag.

– Larry Schramm

Tiger I, SdKfz 181 Ausf. E "latest version"

Kit: No. 35079
Scale: 1/35
Manufacturer: AFV Club, from Merit International, 626-912-2212, http://merit-intl.com
Price: $38.50
Comments: Injection-molded, 255 parts (24 vinyl, 3 metal), decals
Pros: Good detail and fit, excellent photoetched screens and turned aluminum barrel
Cons: Turret parts warped, no figures, aluminum barrel too heavy for trunnions

It seems that every plastic armor kit manufacturer has brought out a new Tiger tank kit in the last couple of years. AFV Club enters the Tiger's den with a new kit of the last version of the Tiger I tank. Molded in olive green plastic, the kit shows excellent surface detail. Included are photoetched-metal screens for the engine grates and a turned-metal barrel for the main gun. Tracks are flexible one-piece vinyl with excellent detail. An interesting spring system is used on the idler to adjust the tension of the tracks.

All of the crew hatches can be posed open or closed and have good interior detail. However, only the basic main-gun breech is provided for the turret interior, which is otherwise bare. No figures are included in the kit.

Actual torsion bars are provided for the main suspension. Take care not to glue them so they won't turn. They have to work or you won't be able to install the road wheels. Installing the springs for the idler tension was a bit tricky as they are a little stronger than they need to be. I didn't install the running gear in step 5 as shown, preferring to wait until everything was painted.

Assembling the main turret parts was complicated by warped side panels. which had to be held in place, attached to the turret top and bottom plate with several rubber bands while the adhesive set. The turned-metal barrel proved to be too heavy for the trunnions and drooped, so I had to glue the gun mantlet.

Almost all Tigers of this era came out of the factory with a coat of Zimmerit. This was an anti-magnetic-mine coating that was troweled on the flat surfaces of the tank, and then raked into ridges. AFV Club sells a Zimmerit tool separately, but I applied hardware-store vinyl spackle with micro saw blades. I assembled the hull and the turret, leaving off many of the small parts that would interfere with the application of the Zimmerit.

If you plan on building a vehicle that has the side skirts in place, you will need to remove the attachment bolts on the hull sides.

Tigers of this period had a wide variety of colorful camouflage schemes, and the decal sheet provides for five different ones. I chose to do the vehicle from the 103rd SS Panzer division based in Normandy in 1944. I used lightened Tamiya dark yellow, red brown, and olive green, matching the pattern shown on the instructions. Unfortunately a top view is not provided, so I guessed.

Take care when applying the decals over the Zimmerit surfaces. They are thin and almost impossible to move over the rough surface. When the decals were dry, I gave the model my usual wash and dry-brush treatment. Finally, I added the running gear, tools, and cables.

The finished model matches the dimensions given in the *Encyclopedia of German Tanks of World War Two* by Doyle, Chamberlain, and Jentz. Another useful reference is *Military Miniatures in Review's* "Modeler's Guide to the Tiger Tank."

It took me about 23 hours to build my cat, a little longer than usual, mainly due to the application of the Zimmerit and the somewhat complex color scheme. If you are looking for a late-production Tiger kit, you won't go wrong with the AFV Club edition.

– John Plzak

Pat Hawkey photo

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C.R. 42 LW

Kit: No. 2640
Scale: 1/48
Manufacturer: Italeri, imported by Testor, 815-962-6654, www.testors.com
Price: $45
Comments: Injection-molded, 85 parts, decals
Pros: Good detail, great fit, engine can be exposed
Cons: No bombs for external racks

Italeri's new Fiat C.R. 42 kit is quite a surprise. Although Italeri has issued 1/48 scale World War II aircraft kits before, they have been reboxed kits from other companies. This one appeared with little notice to the modeling world. The list price is a departure for Italeri, too, as its previous kits of this size have been priced about half of this one.

The first issue is packaged as a Luftwaffe machine, cleanly molded in gray plastic with external bomb racks (but no bombs) and the unusual exhaust-flame dampeners. No pilot figure is given, and decals are limited to Luftwaffe aircraft.

The nine-piece cockpit module is adequately detailed and fits neatly into the fuselage. Both fuselage halves and the stub lower wings fit fine.

The instructions call for adding all of the wing struts to the assembled upper wing. I did this in stages, starting with the two key center struts. I carefully checked the angles of the struts and test-fitted the upper wing to the fuselage/lower wing after adding each strut. This worked well, and after everything was set, I glued the struts to the fuselage and lower wing.

The 14-cylinder, twin-row radial engine was easy to build and shows decent detail. The cowling is a multi-piece affair, and the instructions show how you can cut the panels apart if you want to show off the engine.

The kit features the modified wheel fairings associated with this German version, but the fully enclosed fairings are also included, suggesting a standard Italian C.R. 42 could be in the works.

At first glance, the single-piece windscreen appeared to have an ejector-pin mark right in the center panel, but no, it represents the reflector gunsight plate – nice touch.

I painted my model with a combination of Polly Scale Italian and Luftwaffe colors. The decals have a flat finish but looked good after the model was treated with an overall flat coat. I didn't rig this model, but the only wires on the C.R. 42 were cross bracing inside the outer interplane struts.

The model's dimensions and appearance matched the specifications and photos in Squadron/Signal's *Fiat C.R. 32/C.R. 42 in Action*. I finished my C.R. 42 in just 13 hours. It was easy to build, and I'm pleased with the finished product. It's a good kit if you fancy WWII Italian fighters, or if you want to try your hand at building a biplane.

–Jim Zeske

Schwimmwagen Type 166

Kit: No. 6106
Scale: 1/16
Manufacturer: Eduard, 43521 Obrnice 170, Czech Republic, www.eduard.cz
Price: $99.95
Comments: Injection-molded, 182 parts (10 rubber, 29 photoetched), decals, die-cut masks
Pros: Scale, great instructions with separate color painting guide, photoetched parts
Cons: No engine, few alignment pins, some soft details

Looking for something new to park in your 1/16 scale armor collection? Eduard has released an all-new Schwimmwagen with plenty of detail for big-scale fans.

Inside the large box, you'll find a small photoetched-metal fret, decals for two vehicles, rubber tires, crisp clear parts, and a big pile of sprues molded in soft tan styrene. A clearly illustrated 11-step, two-color instruction book is included, too.

A lot of detail is provided. Each two-piece wheel wears a rubber tire (with a separate solid rubber inner tube) and attaches to the brake-drum's studs with five tiny nuts. Despite the kit's jumbo scale, you'll still need good tweezers and plenty of patience.

Assembly is straightforward but time-consuming. Many of the parts had prominent mold-separation lines that required careful cleanup. I was also disappointed that some subassemblies didn't have clear alignment guides. Installing the rear suspension (and keeping all four wheels on the ground) took a lot of work and gap-filling super glue. The twin fuel tanks in the footwell were difficult to install, too.

The photoetched fret includes fine engine screens and a variety of smaller clamps and fittings. Admittedly, I left off a few of the tiniest parts to ease assembly.

The instructions include a chart with codes for Tamiya, Humbrol, Revell, and Testor paints. I painted my model Tamiya German gray (XF-63) using an airbrush.

The model is a good representation of the stubby Schwimmwagen, and it went together over the course of about a week. It'll look great next to my Tamiya Kübelwagen. Eduard's Schwimmwagen is a complex kit that will reward careful builders, but it will require a little extra effort in the finishing department.

– Matthew Usher

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Fokker Dr.I

Kit: No. 601
Scale: 1/32
Manufacturer: Roden, from Squadron Mail Order, 972-242-8663, www.squadron.com
Price: $37.98
Comments: Injection-molded, 37 parts, decals
Pros: Well-molded, good detail, handy optional parts, well-printed and accurate decals
Cons: Fit problems, some interior details invisible when the model is finished

The Fokker triplane is known by aviation buffs as the favorite mount of the Red Baron, Manfred von Richthofen. Roden's new 1/32 scale release of this aircraft will please World War I fans with its fine detail and markings for four Dr.Is flown by Kempf, von Richthofen, Jacobs, and Udet.

The Dr.I had minimal rigging, so I thought building the model would be easy. I was wrong! Most parts required cleanup of mold parting seams, and some required modification or omission to make a good fit possible. All the control surfaces are molded separately and separate control horns are included. The cowl does not have the semicircular panel on its face plate, but this can be drawn onto the painted cowl with a sharp pencil guided by a circle template. There's a choice of horizontal stabilizers and elevators, one set slightly larger than the other, suggesting an early F.1 kit version to come. This kit has two propellers; one with curved leading edges, the other straight. The molded-on hub detail is great.

The 15-part Oberursel engine is especially well-done. Two sets of machine guns are supplied, one pair without jackets if you wanted to add aftermarket photoetched items. The interior is well-detailed, but no instrument face decals or seat belts are supplied.

The tailplane struts are thin and fragile. I broke both during cleanup. Be aware of a mistake in the instructions. The top wing tips should be A7 and A8; D10 and D11 are the tips for the middle and bottom wings.

I couldn't get both ammunition containers (4D) to fit in the designated area, and since you can only see the rearmost through the open cockpit, I added that one only. I also left off the delicate engine mount (8C) since it can't be seen. I had to enlarge the cutouts in the upper deck (4A) to accommodate the ammo belt and shell chutes for the guns. The engine fits nicely in the cowl and has a sturdy shaft mount.

The lower wing/fuselage joint required work, and the interplane struts and holes for them in the wings needed repeated test fitting and adjustment.

I chose the lesser-known Red Baron mount that has transition markings with both Patee and Latin crosses. The paints were Polly Scale throughout except for the dark green streaking with thinned Model Master British dark green. The decals were considerably better than previous Roden kit decals I have applied. I used wire for the cross braces and control lines.

Once finished, the model looks great, and it's accurate, too. I spent 50 hours on this model, much of it working on the fit and painting. If you're building 1/32 scale World War I aircraft, this one should be in your "to build soon" pile.

– Dr. Bill Funcke

Sopwith Camel "Clerget" aces

Kit: No. 1694
Scale: 1/32
Manufacturer: Hobbycraft Canada, 905-738-6556, www.hobbycraft.com
Price: $19.98
Comments: Injection-molded, 50 parts, decals
Pros: All new, well-molded, good detail, nifty interior-surface treatment, good decals
Cons: Modeler must modify fuselage to align lower wing, undersize instruments, inadequate engine mount

The Sopwith Camel is one of the most famous Allied fighters of World War I and brought down more enemy aircraft than any other aircraft type.

The good news is Hobbycraft Canada's kit is all new, not a reissue of its previous 1/32 scale Camel with its oversized struts. The bad news is the new kit has a crucial fit problem with the lower wing to the fuselage. The good news is Hobbycraft tells you about it ahead of time in the instructions. The bad news is you have to fix it yourself.

The kit's 50 parts are well-molded in light gray plastic with good detail. Control surfaces are nearly separated, and thus, easily positionable. The six-page instruction manual contains rigging diagrams, but some of the parts placements are vague. Well-printed decals provide markings for Capt. Roy Brown's famous Camel and four variations of Maj. W.G. Barker's aircraft. A separate decal sheet has wood-grained decals for the fuselage interior sides and instrument panel (with undersized instruments), and wicker decals for the seat. These worked satisfactorily.

In step 2, you're directed to shave .045" (1.16mm) from the edge of the cutout in the bottom of the fuselage where the one-piece lower wing goes. Good luck measuring. That doesn't seem like much, but if it isn't corrected, the problem cascades, and the struts and upper wing will not come close to proper alignment.

A byproduct of the fuselage correction is that the forward bottom piece (part No. B11) won't sit flush with the fuselage portion of the lower wing. This can be solved by adding B11 to the firewall (A1) after the wing is glued to the fuselage.

The four-part Clerget engine is impressive, but its anchor to the firewall is flimsy. The Vickers guns are also nicely done. Hobbycraft did not include the clear inspection panels for the wing leading edges or the strut-mounted generator.

With a little effort the detailed cockpit interior was made to fit within the fuselage halves. The one-piece wings and stabilizers have good rib detail and are acceptably thin for the scale.

I painted the model with Polly Scale acrylic brown drab on the upper surfaces and French beige for the lower surfaces. The decals went down fine with a touch of Solvaset.

I made a jig to hold the assemblies together when adding struts and rigging. With the lower-wing/fuselage correction done, I added the interplane struts first, then brought in the cabane struts with the upper wing in place. I used monofilament and wire for the rigging and control wires. Hobbycraft's rigging diagrams are helpful.

The model is basically accurate in dimension and contour when properly assembled. I spent about 45 hours on it because of fit problems and all the rigging. After building Hobbycraft's excellent SPAD XIII, this kit was a disappointment. It should be attempted by experienced modelers.

– Dr. Bill Funcke

USS North Carolina

Kit: No. 05303
Scale: 1/350
Manufacturer: Trumpeter, imported by Stevens International, 856-435-1555, www.stevenshobby.com
Price: $114
Comments: injection-molded, 634 parts, decals
Pros: Accurate dimensions, good instructions, painting guide, choice of full hull or waterline

Cons: Some poorly detailed parts, ejection pin marks and sinkholes, troublesome deck seams

Trumpeter continues to answer the calls for new 1/350 scale ship subjects, this time with the USS *North Carolina*. I knew the moment I opened the box this was not your average ship model. There are 11 sprues, three deck sections, an upper and lower hull, and a waterline plate.

Initial review of the parts indicated some shortcomings. The kit's 20mm Oerlikon guns lack detail, are oversized, and lack splinter shields. Each of the ready-storage lockers for the 20mm guns has a sinkhole that requires filling, and there are 76 of them.

The ship's cranes and catapults are molded as solid parts and are fair representations. These parts can easily be upgraded with photoetched details.

I built my *North Carolina* in full-hull configuration, and immediately noticed problems with the fit of the upper and lower hulls. The lower hull is about .060" too narrow on each side, so I removed the support braces on the inside of the upper hull. By applying pressure to the upper hull sides while gluing, I was able to eliminate the overlap. I skipped the deck installation step in the instructions to correct the hull problem and installed the deck after the hull glue dried.

It's nearly impossible to fill and sand a deck seam while retaining the scribed plank detail, and this kit is no exception. I taped off the details on each side of the seam, glued them into place, and lightly sanded. I rescribed the plank details with a No. 22 blade by rocking it from one side of the deck to the other.

Trumpeter has taken a new approach with detailed panels that overlay a structural foundation. This allows bulkheads and other vertical parts on the superstructure to have fine molded-in details such as portholes, hatches, and ready-storage lockers. The downside is that each panel

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has ejector-pin marks on its backside that require sanding. It also means every corner where two parts meet has a seam that requires filling.

The kit's 40mm Bofors guns and 5" dual-purpose guns are excellent, although the Bofors lack splinter shields. The Mk. 12/22 radar, SK-2 radar, and Mk. 8 gunnery radar arrays are molded as solid parts and would be better represented by photoetched replacements.

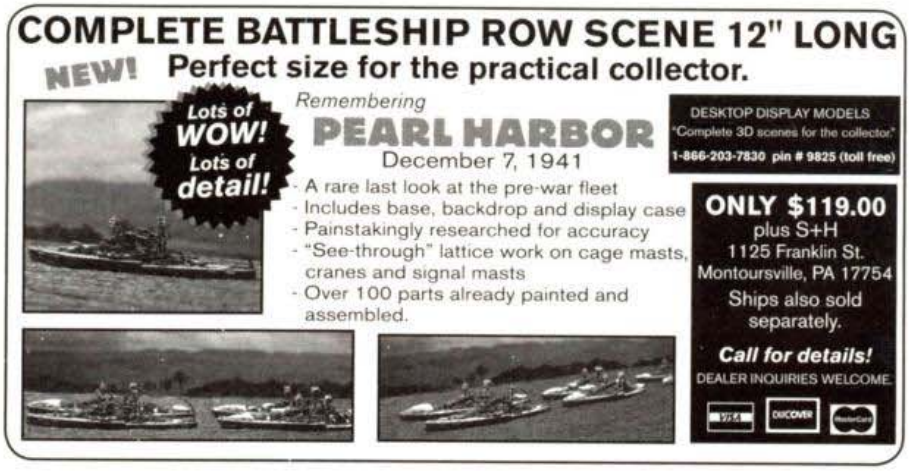
The foremast is nicely done and is relatively sturdy, but the mainmast is fragile and should be replaced with brass rod if the model is to be rigged.

The separately molded splinter shields and gun tubs are a nice feature in this kit, since they can be painted before they're attached to the deck.

In the interests of time, I didn't rig my *North Carolina*, and I painted her in the simpler Measure 22 instead of her Measure 32 dazzle pattern. I used Testor Acryl 5-N navy blue, 5-H haze gray, 20-B deck blue, and anti-fouling red. My kit's decals were missing, so I was unable to apply hull numbers or put markings on the Kingfishers.

I spent 60 hours on this model, a fraction of the time I would expect to spend on a battleship on this scale. Experienced builders will find lots of room to add photoetched details, especially replacing the cranes and radar arrays. This is a complex model that requires time and patience. Though it has several small problems, nothing prevents the average modeler from building this kit.

– Jeff Herne



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Westland Wyvern S.4

Kit: No. 01619
Scale: 1/72
Manufacturer: Trumpeter, from Stevens International, 856-435-1555, www.stevenshobby.com
Price: $27.98
Comments: Injection-molded, 160 parts (1 photo-film), decals
Pros: Great detail, excellent fit, good ordnance selection
Cons: No dihedral in tailplane, errors in instructions, should not have folding wing tips

After years of obscurity, the Westland Wyvern has suddenly emerged as a popular kit subject. Following Classic Airframe's new 1/48 scale kit (see July '05 Workbench Reviews), Trumpeter has issued this odd-looking, prop-jet strike fighter in a highly detailed 1/72 scale kit. Decals have markings for two Wyverns in standard finish and one 830 Squadron bird with black and yellow Suez markings – you have to paint the stripes, though.

Options abound in this kit; you can decide whether to fold the wings, use the rocket-assisted takeoff gear (RATOG), or hang the fine selection of ordnance: three 1,000-pound bombs, 16 60-pound rockets mounted on eight two-tier rails, drop tanks, and a torpedo (which was never used operationally on the Wyvern).

Study the instructions carefully, as there are many small errors. For instance, step seven shows the canopy brace (part No. B22) incorrectly installed on the rear deck, while step 21 correctly shows the brace being attached to the inside of the canopy. The full-color painting and marking guide fails to mention the spinner markings included in the kit.

The fit of Trumpeter's Wyvern is outstanding. The complicated, multi-part spinner assembly holds together without glue. The wing assembly literally clicks into place. Parts count is high – 13 in the spinner assembly alone, of which only eight are visible – but there are no fit issues to slow down construction.

I didn't care for the film-backed instrument panel included in the highly detailed interior – the panel is molded in hard-to-paint clear plastic, and it is too thick to show the gauges. I painted the fixed por-

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tion of the spinner prior to installation, as it would be difficult to mask otherwise.

The wing assembly is impressive with separate flaps and dive brakes, as well as folding outer wings. Trumpeter included folding tips, but these were only on early Wyverns that cannot be built from this kit without extensive modifications. The fit of the outer wings is excellent if unfolded. You should remove the hinges and install the inner gear doors in the closed position.

I have seen drawings that show the pylon mount on the folding portion of the wing, as Trumpeter has molded its kit, but photos show they should be under the fixed portion of the wing. Trumpeter directs the modeler to open holes in the center section based on the options chosen; but if you don't want to use the rockets, you have to fill all eight pairs of mounting holes.

The stabilizers include razor-thin finlets that fit well enough to leave off until after painting. Trumpeter overlooked the trademark tailplane dihedral. I removed the mounting tab and carefully sanded the stabilizer roots to the proper angle.

Trumpeter's Wyvern is an odd mix of brilliant fit and detail, coupled with strange research errors. Fortunately, the problems were easy to correct. You'll need some experience to build and correct this kit, but an impressive Wyvern awaits when you finish.

– Chuck Davis

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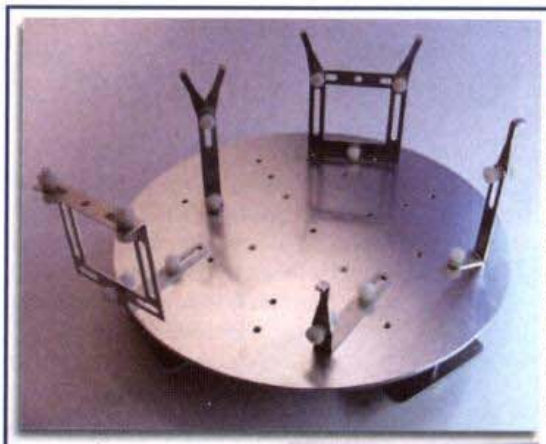

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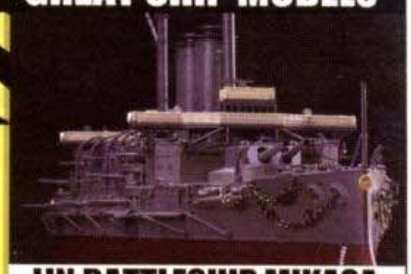

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USS Essex CV-9

Kit: No. 7049
Scale: 1/700
Manufacturer: Dragon, from Dragon Models USA, 626-968-0322, www.dragonmodelsusa.com
Price: $34.95
Comments: Injection-molded, 483 parts (63 photoetched), decals
Pros: Choice of full or waterline hull, crisp detail, extensive photoetched set, refit choices, viewable hanger deck

Cons: Lack of rigging diagram, no yardarm, instructions incorrect or vague, repetitive poses of photoetched figures

The aircraft carrier USS *Essex* (CV-9) was the first of its class of "fast attack" carriers built during World War II. Commissioned on the last day of 1942, *Essex* saw action in most of the major Pacific campaigns. She entered the reserve fleet in 1947, was decommissioned in 1969, and scrapped in 1975.

The first thing I noticed when I opened Dragon's box was the large number of parts! The moldings are crisp, having both recessed and raised surface details. The photoetched set is beautiful, and provides radar antennas, lattice masts, deck-side elevator supports, and several tiny crew figures. No railings are provided, though. An optional clear flight deck allows viewing the hangar deck below.

Kit options include waterline or full-hull, 1943 through 1944 refits parts, and 18 TBF, F6F, and SBD aircraft.

The two-page, 10-step instructions are clearly illustrated with part numbers. A painting and marking guide is also part of the instructions.

One mistake of note in the instructions was an incorrectly drawn and labeled illustration for the 1944 extended-bridge version. In step 8, on the inset drawing titled "Early 1944," the parts identified as E1 and E4 should be replaced with parts F1 and F2.

Markings for both 1943 and 1944 flight decks are included, along with two versions of aircraft stars and bars. The decals are thin, printed in register, and the colors appear accurate.

Assembly was straightforward except for a few glitches. In step 8, to mount the photoetched SK radar at the correct distance from the stack, use the base from part No. K17 and a short length of rod. In addition, the photoetched rail MA12, is too wide to fit in its location, and the bridge sides will need to be trimmed.

I chose to depict my *Essex* in Measure 21, so I painted the model with Polly Scale's acrylic USN 5-N navy blue and the flight deck with deck blue 20B. After a coat of acrylic clear gloss, I doused the flight deck decals with repeated applications of Micro-Sol to get them to conform to the intricate surface detail.

I weathered the flight deck with Polly Scale deck tan and a brownish-black oil paint wash. Dry pigments add rust and sea weathering. Wrapping up construction, I painted and posed a few aircraft and figures on the flight deck.

The model is nicely detailed when finished, and it measures right to the dimensions in *Warship Perspectives – Essex Class Aircraft Carriers in WWII.*

Although it's a trouble-free project, working on the photoetched parts and small-caliber weapons was time consuming; I spent 24 hours on my *Essex*. Because of the large number of small parts, you should have some modeling experience before tackling this one.

– Phil Kirchmeier

by Matthew Usher

A few drops of thinner applied with a paintbrush will soften the problem-causing paint in the threads.

Slip-joint plumber's pliers will give you plenty of extra leverage, but be careful not to bend the cap or break the bottle!

Wiping down the bottle threads after every painting session will keep things from getting stuck in the future.

Matthew Usher photos

Opening stubborn paint bottles

Nothing is more frustrating in the model-building world: You're halfway through your latest project, and after digging out just the right color from your collection of paint bottles, you find the cap stuck to the bottle. It won't budge, no matter how hard you try. What do you do?

Properly stored, model paint will last a long time (I have several bottles in my collection that are almost 20 years old.) But the longer bottles hang around and the more you use them, the more likely you'll have one that will stick shut.

It only takes a tiny amount of dried paint in the bottle's threads to lock things up tight. To loosen the stubborn cap, turn the bottle upside-down and flow a little paint thinner into the cap using a paint brush, **1**. Using the thinner that's appropriate for the brand of paint in the bottle usually works best. Let the bottle sit for 15 minutes so the thinner can do its work. Usually the problem paint will soften enough to allow you to remove the cap.

If it's still stuck or only turns a little bit, you might need more leverage. A big pair of slip-joint plumber's pliers may do the trick, **2**. Wrapping the cap with masking tape will keep you from scratching it and will give the pliers' jaws something to dig into. Never squeeze hard enough to deform the cap; you'll run the risk of ruining it, or worse, breaking the glass bottle. If things don't budge (or don't budge enough) try another application of thinner and try again with the pliers.

Did it finally open? Good! Here's how to keep it from sticking shut again. Dip a piece of clean paper towel in thinner and wipe down the lip of the jar and inside the cap, **3**. As you wipe the bottle, wipe from the inside of the lip toward the outside, so the dried chunks of paint you loosen won't fall into the bottle. Lots of gunk will come off, and you may need to make two or three passes with fresh thinner until everything's clean. Getting in the habit of wiping down the jar after each painting session will keep those lids turning freely so your paints will be ready to go when you are. **FSM**

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Questions & Answers

A clinic for your modeling problems
Conducted by Paul Boyer

Armor scales

My local hobby shop has piles of armor kits in both 1/72 and 1/35 scale. I imagine both have their advantages and disadvantages; what are they?

– E.M. Gottlieb
Chicago

The most common armor scale is 1/35, and it has the best selection of subjects. most tank models in this scale range from 4" to 9" long (excluding the gun tube), and have good to great detail.

Armor in 1/72 scale is about half the size of 1/35, and there aren't as many kits (and fewer accessories) in the smaller scale. Details are not as fine as in the larger models, but often the kits are easier to build.

Space and price are considerations: you can display four 1/72 scale tanks in the same space as one 1/35 scale model. Some 1/35 scale tank models cost more than $50, while most 1/72 scale kits go for around $10.

Cracked finish

I airbrushed a kit with Humbrol and Mo-Lak enamels thinned with Humbrol thinner mixed with a few drops of nitrocellulose thinner. Several weeks after curing, I polished the surface with toothpaste and a soft rag. Several days after that, I noticed the surface was marred by very thin, small and, in places, dense cracks. Is it possible to fix the problem with a few thick applications of Future floor polish?

– Andrea Lugli

Cracks in a finish can be due to several problems. It is possible that the undercoat had not yet finished curing before another color was placed over it. Also, if the paint is too thick, the top dries before the bottom, and it yields when the bottom starts to shrink/expand as it cures. The last possibility is incompatible paints, one chemical interacting with another.

It is possible that the finest cracks can be sealed with Future or some sort of clear finish, but you'll have to experiment to find out if it will work.

"Asia Minor" colors

I'm trying to model an Iranian Phantom and I can't find some of the colors. My sources indicate the paint scheme is light gray (FS 36622) on the undersurface, with "tan special" (FS 20400), "brown special" (FS 30140), and dark green FS 34079 on top. I can find the dark green and light gray, but can you recommend Humbrol colors for the tan and brown?

– David Chong
Kuala Lumpur, Malaysia

You are describing the "Asia Minor" color scheme that was developed about the same time as the "Tactical" scheme most closely identified with the war in Vietnam. Humbrol matte sand (53) is very close to FS 20400, and Humbrol brown (186) is close to FS 30140.

Resin kits

I would like to build resin kits, but I have no experience with them. Can you recommend starter kits and books for beginners?

– J.J. Keating

I can't recommend any particular brand, but you might want to consider working with a resin detail set before building a full resin kit. This will allow you to cut your teeth on a more-affordable item and see if you like it. The only book that comes to mind is my own, *Building and Displaying Scale Model Aircraft*, which has a chapter on building an all-resin kit, and other chapters on working up a vacuum-formed kit, painting, conversions, and adding working lights.

Know when to fold 'em

I have little experience using photoetched parts, but I feel I should buy one of those folding tools. Would they be good for a beginner?

– John Kish
Brantford, Ontario, Canada

The Etchmate and Hold-n-Fold tools for manipulation of small photoetched parts would be helpful for beginners. They might seem expensive, but once you get used to using one, you won't want to be without it.

New Stratojet?

Does anyone on the staff know if the

Hasegawa 1/72 B-47E has been updated with recessed panel lines? Several issues of the Hasegawa kit were made from the old AMT mold.

– Don Frankfort
Gillette, Wyo.

The Hasegawa kit dates from 1968 or so and was repackaged in the United States under the AMT label, not the other way around. It was also packaged in England under the Frog label.

As far as I know, no changes were made to the molds since the kit first came out. If recessed panel lines are important, you'll have to engrave them yourself.

Liquid measure

I enjoyed Matthew Usher's "Secrets of resin casting" article in the May issue, but how do you calculate the amount of silicone rubber and/or resin to be used? I don't want to use too little but hate to waste the materials.

– Ed Collins
Alexandria, Va.

Before filling a mold (or mold box) with RTV or resin, fill it with water. Pour the water into a measuring cup, and you'll know how much the cavity holds.

If you don't want to get things wet (or if the Lego box leaks too much) you can fill the cavity with uncooked white rice and measure that amount with a measuring cup. It's not as precise as the water method, but it still gets you pretty close.

– Matthew Usher

Simply dazzling

I'm looking for a source of drawings of the dazzle schemes applied to the *Essex*-class carriers during World War II.

– Randy Calvanelli

There's a listing of *Essex*-class camo schemes on www.shipcamouflage.com, and you can find an explanation of the USN measures that I wrote, including the colors, on www.steelnavy.com, under the Modeling Tips section.

Once you've determined which camo scheme you want, you can contact Floating Drydock (www.floatingdrydock.com) and purchase a photo of the actual design sheet, or purchase *Warship Camouflage Volume 2*, (also available from Floating Drydock), which has smaller versions of all the design sheets.

– Jeff Herne

Joe who?

A recent issue covered the 1/72 scale Tsar tank by Kora. The article stated that Joe Francesco was the U.S. distributor. How do I contact him?

– Ron Snow
Portage, Mich.

Joe Francesco imports kits from the Eastern Bloc. He doesn't have a retail store but travels the model show circuit. He runs an eBay store: http://stores.ebay.com/Joes-Models.

– Jeff Herne

Canberra MIA

A friend's father was shot down in Laos in 1965, and he was listed MIA. His remains were recently found. I'd like to build a model of my friend's father's airplane, a B-57 Canberra. Right now, I can't find a kit, but I know there have been a few. Can you help me find one?

– Bill Collins
Marshall, Tex.

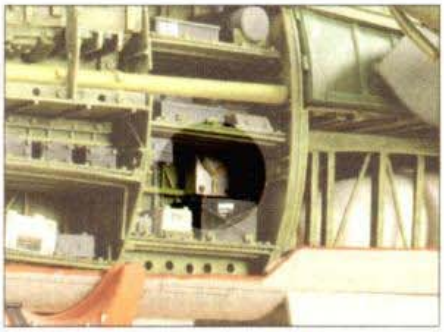
Italeri made a fine 1/72 scale kit, the two-seat B-57B model, which would be what your friends' dad was flying. Airfix also made a B-57B/RB-57E kit. They are not in production right now, but they're not really rare, either. I suggest you check local model meets and eBay for a copy.

Wrong information

I bought an old Teknics detail set and it came with the wrong instructions. Didn't Teknics go out of business? Where can I get the correct instuctions?

– Dave Catlow
Richland, Wash.

Teknics was bought out by Meteor Productions. Check to see if they have them: www.meteorprod.com



So, were you still looking for Dan Jayne's capricious addition of a "Back to the Future" flux capacitor in his cutaway F-105D (page 16)? There it is (above). I wonder if Marty McFly would have had enough runway to get the Thud up to 88mph? **FSM**

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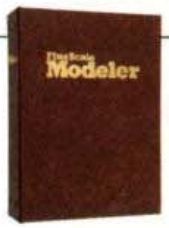

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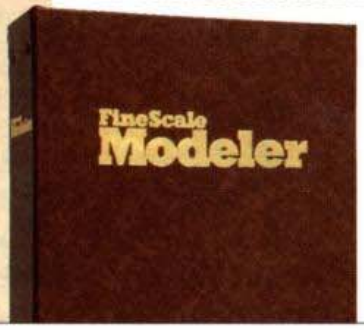

F2002

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Coming Events

Modeling meeting places and times

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Huntsville, Oct. 1. 29th Annual Model Contest, Jaycees Building, 2180 Airport Rd. SW. Contact David Lanteigne, davelant@hiwaay.net, 256-880-2288. Visit hpmsweb.topcities.com.

California

Culver City, Sep. 17. 16th Vehicle and Construction Equipment Swap Meet and Model Show, Elks Club, 11160 Washington Blvd. Contact Rich Johnson, 310-454-8075.

Colorado

Loveland, Sep. 30-Oct. 1. IPMS Region 10 Convention, The Ranch, 5280 Arena Circle, Suite 100. For more information, contact Mark Bradley, bradley_mr@hotmail.com, 303-881-5001. Visit www.ipmshpm.org/2005Region/.

Idaho

Moscow, Oct. 1. 11th Annual "Show Off the Good Stuff," Moose Lodge, 210 N. Main St. For more information, contact Wally Bigelow, 605 NW Fisk #27, Pullman, WA 99163; 509-334-4344. Visit community.palouse.net/spam.

Illinois

Wheaton, Sep. 25. 46th Plastic Kit and Toy Show, Dupage County Fairgrounds, 2015 W. Manchester Rd. Contact Past-Time Hobbies, Inc., 9311 Ogden Ave., Brookfield, IL 60513; 630-969-1847; Tom Beauchamp, P.O. Box 7387, Villa Park, IL 60181; 630-268-0859.

Louisiana

Baton Rouge, Sep. 17. Cajun Modelfest XXI, Louisiana Naval War Museum, 305 S. River Rd. Contact David Campbell, helomodlbldr@hotmail.com. Visit www.brmodelers.com.

Massachusetts

Reading, Sep. 10. PATCON 2005, First Congregational Church, 25 Woburn St. Contact Bart Navarro, 6 Moreland Ave., Andover, MA 01810, bb396ss@comcast.net, 617-590-6676.

Dedham, Sep. 25. Fall Greater Boston Antique and Collectible Toy Show, Holiday Inn. For more information, contact Mrs. Devlin, 508-379-9733. Visit www.bostontoyshow.com.

West Barnstable, Sep. 25. 14th Annual Model Show, Cape Cod Community College. Contact Jeff, modeltrk@thecia.net; Ron, 508-394-5513. Visit www.ccsma.com.

Michigan

Kalamazoo, Sep. 17. 7th Annual Airzoo Model Contest. Contact John Tinay, 3636 Colonial Ave. NE, Grand Rapids, MI 49525, johnetinay@aol.com.

Minnesota

South St. Paul, Sep. 10. Nordic-Con 2005, Terminal Building, Municipal Airport. Contact Steve Macey, rcaf_413@yahoo.com, 651-735-4334; Johannes Allert, nirway_331@yahoo.com, 763-213-0370. Visit www.aerohistorians.org.

St. Peter, Sep. 18. 10th Annual Model Car Show, Nicollet County Fairgrounds. Contact Gregory Pausewang, 57chevy1957@charter.net, 507-526-3531; Dave Morrow, dalurch@charter.net, 507-345-4370 (evenings).

Missouri

Kansas City, Sep. 17. Show Me State Scale Model Show, Vatterott College, 8955 E. 38th Terrace. Contact Kelly Quirk, 235 W. 12th Ave., North Kansas City, MO 64116, keldq@aol.com, 816-471-4580(day), 816-415-9745(evenings). Visit www.warshipmodels.com/ipms-wcmo.

Nevada

Reno/Stead, Sep. 10. IPMS "High Rollers" 6th Annual Model Contest, Desert Heights Elementary School, 13948 Mt. Bismark. Contact Neil Hulse, knk41063@aol.com; Todd Johnson, toddlea@charter.net; Douglas E. Summers, ghpltd@aol.com.

New York

Rochester, Sep. 18. ROCON 26, Park Plaza Hotel, 175 Jefferson Road. For more information, contact jkloek1@rochester.rr.com, 585-223-1128.

Ohio

Zanesville, Sep. 17. 7th Annual Model Contest. For more information, contact Jason Smock, jsmock@stubbsaddis.com, 740-455-9783; Ted Quinn, cquinn7@columbus.rr.com, 740-982-6657. Visit www.ycsm.net.

Oregon

McMinnville, Sep. 17. Historical Modeler's Show and Contest, Evergreen Aviation Museum, 500 Michael King Smith Way. For more information, contact Brian Yee, 503-309-6137. Visit www.geocities.com/oregonshow.

Pennsylvania

West Middlesex, Sep. 24. SVASMCON 21, Church of Good Shepard, 3613 Sharon Rd. Contact Dennis DeMartinis, 2010 Haywood St. Ext., Farrell, PA 16121, denny99@infonline.net, 724-981-6093.

Texas

Arlington, Sep. 10. IPMS - Fort Worth Scale Modelers SuperCon 2005, Bob Duncan Community Center, Vandergriff Park, 2800 S. Center St. Contact (5:30 p.m. to 9:00 p.m. only) Skip Rogers, 817-246-2624; Charles Jerden, 817-738-8373; Darrell Carney, 817-263-0444. Visit fwsm.com.

Utah

Layton, Sep. 23-24. SHOCON 05, The Gathering, Davis Conference Center and Hilton Garden Inn, 800 W. Heritage Park Blvd. For more information, contact Phil Gladstone, 984 N. Compton Rd., Farminton, UT 84025, pgladstone@netzero.net.

Wisconsin

Milwaukee, Sep. 18. Scale Auto Hobby and Toy Show, American Serb Hall, 5101 West Oklahoma Ave. For more information, contact Jim, 262-246-7171, unievents1@aol.com. Visit www.uniqueeventsshows.com.

Oshkosh, Oct. 1. HobbyTown USA Plastic Model Show. Contact 920-426-1840.

Canada

Ottawa, ON, Sep. 10. Capcon 2005, Nepean Sportsplex Salons A and B, 1701 Woodroffe Ave. Visit www.ipmsottawa.ca.

Calgary, AB, Sep. 10-11. 4th Annual Alberta AFV Modeler Show, Museum of the Regiments, 4520 Crowchild Trail S.W. For more information, visit www.thebarrelstore.com.

United Kingdom

Farnborough, Sep. 25. IPMS Modelfest, 6th Form College, Prospect Ave. For more information, contact Pete Readman, preadman@btconnect.com. Visit www.ipmn-uk.co.uk/branches/branchinfo_farnborough.htm.

Glasgow, Oct. 1. Open Model Show and Competition, Kelvin Hall International Sports Arena, Argyle St. Contact Geoff Crow, 13 Merrygreen Place, Stewarton, Ayrshire, Scotland, KA3 5EJ, geoff.crow@east-ayrshire.gov.uk, crj294@aol.com, 01560-484578, 01563-554832.

History You Can Model

by Jeff Herne

U.S. Army Photo SC 196127

The M4 Sherman medium tank

The M4 Sherman was America's primary armored fighting vehicle during World War II. Derived from the M3 Lee, the Sherman proved fast and reliable, but suffered from a high silhouette and inadequate armor protection. The 75mm gun fitted to early variants was capable of knocking out a German Panzer III or IV, but was unable to penetrate a Tiger or Panther except at close ranges, and usually from behind. The Sherman's weaknesses were immediately realized, and its crews nicknamed them Ronsons, after the famous cigarette lighter, because of its tendency to burn when hit.

The Sherman went through dozens of modifications during its development. It was up-gunned to a long-barreled 76mm, giving it considerably more offensive firepower than the earlier 75mm. The M4A3E2 "Jumbo" received additional armor but was still outclassed by the Tiger and Panther tanks. Whatever weaknesses the Sherman had were made up for by its production numbers. More than 49,000 Shermans were built in dozens of variants, from armored recovery vehicles to amphibious duplex-drive (DD) tanks. During WWII, the Sherman was provided to Allied nations under the Lend-Lease Act, with thousands sent to Russia, England, Canada, and France.

In the Pacific, U.S. tankers used high explosive rounds against the lightly armored Japanese tanks and provided close support for Marines in the island-hopping campaigns.

After WWII, the Sherman saw action in Korea, this time against Soviet-made T-34s, and remained in the U.S. inventory until 1956. Many countries received surplus Shermans from the U.S. after WWII. The Israeli M51 was, perhaps, the ultimate Sherman, carrying a lethal 105mm gun capable of destroying the modern T-55 and T-60 Soviet battle tanks fielded by Israel's Middle Eastern adversaries. **FSM**

Modeling the M4 Sherman

1/16 scale – Tamiya, SOL, Verlinden
1/32 scale – Monogram
1/35 scale – Tamiya, Dragon, Academy, Italeri, Heller
1/48 scale – Tamiya, Bandai
1/72 scale – Airfix, Hasegawa, Italeri, Eduard, Extratech, Heller, Esci
1/76 scale – Fujimi, Revell, Airfix, Matchbox, Nitto

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Whether your passion is armor or aircraft, Academy often molds more parts per kit for more realism per model. We even have some models where you assemble the tank treads one link at a time. Bolts are sometimes separate, not molded in. From gun breeches to first aid kits and tools, nothing is overlooked. Even uniforms are realistically creased and faces wear lifelike expressions.

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